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Labor and Technological Advance

A summary of addresses delivered before a Round Table conference on this subject held at the Waldorf Astoria Hotel, January 18, 1945, in connection with the 266th Meeting of the National Industrial Conference Board. Mr. C. S. Ching, Director of Public and Industrial Relations, United States Rubber Company, presided.

ALBERT RAMOND, President
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IT IS estimated that one American synthetic rubber plant with 734 employees is producing yearly as much crude rubber as 45,000 East Indian natives formerly produced. This dramatically reveals the cause of labor's fear of technological advances as a threat to employment.

It was this fear that caused eighteenth-century silk weavers in Lyons to smash new looms and throw the inventory into the river. It explains why cloth cutters capable of cutting 50 to 100 plies of material with electric cutters held production down to twelve or eighteen plies; why mechanical loaders and conveyors in coal mines "broke down"; why painters refused to use spray guns.

REALISTIC ATTITUDE

Labor's attitude has been essentially realistic and is based on hard experience. When improvements have made for better working conditions and more jobs, labor has generally reacted favorably, but when the reverse seemed true labor has generally been antagonistic.

In its 1940 edition of "Productivity, Wages and National Income," the Brookings Institution compared employment during the periods of 1923-1924 and 1936-1937 in manufacturing, railroads, mining and electric light and power, representing about 75% of the industrial employees in this country. During this thirteen-year period, employment opportunities appeared to have been definitely restricted because of the failure of output to increase in proportion to productivity. All these hard realities should be kept in mind in considering labor's opposition to industrial improvements.

HAROLD F. BROWNE (1889-1945)
Secretary
The Conference Board
Director
Management Research Division

In nearly a quarter of a century of unselfish service for The Conference Board, Harold Browne broadened the base of the profession of industrial relations and extended its horizons. He pioneered in the application of scientific principles in management research and of human rights in employer-employee relations. Both management and labor will miss his foresight and forthright honesty. The Staff of the Board is shocked and saddened at his passing.

For as long as workers have inadequate protection against loss of jobs it is only human for them to resist the introduction of labor-saving devices. Their case was well stated by Clinton Golden of the United Steelworkers of America when he said: "If improvements reduce employment opportunities the fear of workers for their own security will express itself in active, aggressive opposition or in more passive measures of resistance which tend to counteract the efficiency of the new method. Labor will not willingly and knowingly work itself out of a job."

Open opposition by labor to technological improvements has been the exception rather than the rule. A more serious problem is the opposition to improvements in design or methods intended to reduce costs which take the form of unwilling or half-hearted acceptance, resulting in failure to obtain full use of the improvements.

ALLAYING FEARS

But when labor's fears are allayed its response can be astounding. A strip mill built a few years ago was planned by the best engineering skill available. Heating furnaces were provided to match the expected maximum tonnage. However, the attractive incentive rates provided so stimlated labor effort that within a year production exceeded advance estimates by 50% and furnace capacity had to be increased. What the engineers had failed to evaluate properly was what the ingenuity, skill and application of the crews could accomplish when given satisfactory financial interest in production.

The real significance of labor reaction to technological advances will manifest itself after the war. Reconversion of industry to civilian production will entail many important technological changes. The patriotic urge will have disappeared and millions of additional workers will be seeking jobs at a time when civilian markets will have to absorb most of our productive capacity. Under these circumstances, there may be a return to a spread-the-work attitude and increased opposition by labor to technological advances, especially if there is any large amount of unemployment. This would have a bad effect upon the health of our postwar economy. The resulting drop in productivity would lead inevitably to either higher prices or lower wages or both with a consequent decline in purchasing power and markets.

If this development is to be avoided, labor's fears of the effects of technological improvements must be dealt with at their source. First and most important is security of employment, second is security of income, and third is a better understanding of objectives.

TIMING IMPORTANT

Timing and rapidity of introduction of technological advances should also be carefully considered. When possible, such changes should be made during periods of rising employment. If this is not feasible and a surplus of labor develops, there should be transfers to other jobs and a suspension of hiring replacements for other causes of turnover. If there is no slack that can be taken up, surplus workers can be used on special nonproductive jobs reserved for such occasions.

When layoffs are inevitable, reemployment priority, free employment service and dismissal compensation should be provided. If a substantial portion of the benefits that have resulted from technological advances are reserved as benefits for displaced workers, labor will be more inclined to cooperate.

Protection against reduced earning capacity because of decreased skill requirements is seldom possible, under present wage stabilization. Probably the best solution is to provide training facilities to permit these workers to acquire new skills which will permit them to return to higher-paid classifications. When incentive wages are installed there is the added problem of probability of decreased earnings during the transition period while the workers are becoming thoroughly familiar with new work. If the change demands extended experimentation the workers should be paid straight day rates high enough to make up for loss of incentive earnings during the transitional period.

The manner in which technological changes are introduced goes far toward determining labor's attitude. When management explains objectives and methods and does everything possible to mitigate immediate unfortunate effects, labor has usually responded with excellent cooperation.

Management must do more than preach economic fundamentals or exhort labor to a fuller realization of its responsibilities. It must get at the real causes of resistance and provide really compensative measures.

WILLIAM GOMBERG, Director Management Engineering Department, International Ladies' Garment Workers Union

I WISH that it were possible to realize the happy solutions of the problems caused by technological displacement outlined by the previous speaker, but unfortunately such conditions are rarely encountered in practical, competitive industry. It seems to me more important to analyze the sort of organization within which employees are working than to dismiss this opposition to the developments of new techniques in industry.

I want to approach this subject in the following way:

First, to analyze the different types of technological changes in industry and their comparative effects upon employment opportunities;

Second, to examine the underlying assumptions behind the economic theory that represents technological progress as being incapable of any deleterious public effects;

Third, assuming acceptance by both business and labor of these assumptions, to compare business methods of figuring cost of a technological improvement with union policies that have been devised to meet the problem and the social costs involved;

Fourth, to compare the actual social and economic picture with the consequences of the assumed theory; and,

Finally, to examine why what happened should not have happened if it did happen.

KINDS OF CHANGE

It is well to distinguish between kinds of technological progress. First, there is the technical advance that creates new products and new jobs with no labor displacement, as, for example, the telephone. Next, there is the technological change that produces substitute materials to perform uses once performed by older materials, as plastics may replace steel for some purposes.

The third type of technological advance is the speedup of all production processes. One form of this is improvement in machine design. The other, which has probably caused most trouble, is the introduction of so-called management-engineering techniques. And I want to say in passing that most of the disputes between management and labor over the results of these techniques do not arise from the techniques themselves but from the insistence of management that their administration is purely a management prerogative. Those who know what can be done with a leveling factor in a time study will understand why we question the objectivity of the technique.

JUSTIFICATION OF CHANGE

Most of the justification of technological change is found in the so-called compensatory theory of technological development, which is part of the classical tradition in economics and to which all businessmen subscribe under the free enterprise system. The chain of events and effects can be briefly stated like this: A technical change takes place, a reduction in cost takes place, a reduction in price takes place, consumption increases, employment opportunities expand. The more technology the lower the price and so on *ad infinitum*. In other words, given an elastic commodity, you can't get any technological unemployment no matter what happens. Stated in another way, if the management keeps all the savings from technological development it accumulates corporate reserves which are reinvested, thus creating new job opportunities. But do these corporate reserves always get an investment opportunity? Or, does it sometimes occur that there is such a thing as involuntary unemployment?

And is a dismissal wage an adequate return for loss of job and earning capacity? In the present period, war production has absorbed displaced workers, but what would happen in a "normal" period?

What does the typical corporation do when confronted with the problem of computing the savings from a technological device? It writes the old machine off the books no matter what the depreciation is. If there have been two years of depreciation on an estimated twenty years it is still written off. In other words, no matter under what economic system we are operating, the rights of that machinery are sacred and must be met. But what about the social obligation to the men involved? Apparently there is none at all. They are out on the street. Their years of experience have become worthless. And then we talk about the risks of capital as against the irresponsibility of labor which undertakes no risks.

BENEFITS OF CHANGE

Let's ask ourselves what has happened to the production of technological improvements in the last few years? It would be interesting to know how the benefits have been distributed among the several groups in society, particularly consumers, workers and corporate management, and what effect this division has had in providing new job opportunities.

In his book, "Prices in Recession and Recovery," Frederick C. Mills presents the following figures. Per capita productivity increased 29.6% from 1899 to 1914, and 48.6% from 1914 to 1929. From 1929 to 1933, in spite of depression and curtailed job opportunities, it increased 19%. Note that job opportunities are being curtailed but productivity is rising.

Meanwhile, the real return to the worker increased 4.8% from 1899 to 1914, 36.9% from 1914 to 1929 (a sizable increase) and 15.5% from 1929 to 1933. The return to management increased

2.2% from 1899 to 1914, 61.5% from 1914 to 1929, and 15.2% from 1929 to 1933.

Because of curtailed purchasing power this figure of 61.5% is the key to understanding what happened in 1930. This money that should have been used for investment opportunities found none because there was no consumer demand for the product which enterprises would have to make under the circumstances.

The same material is interpreted somewhat differently by Spurgeon Bell of the Brookings Institution. He finds that the total amount of wages paid decreased $535 million because man hours of employment had decreased 16.5%. He informs wage earners that they had received a substantial increase in hourly earnings but that their principal gain had been in additional leisure. We have another name for it—we call it unemployment.

That is what happened in the past when we let matters take their course. Business wants to return to the 1929 picture when labor behaved itself. It wants a reduction in the tax rate, but labor has a program too. It is substantially this—we don't like to see production restricted by the failure of business to invest because it thinks it too risky. We want enterprise to be completely free and if it is free it ought to compete on the same basis as government. I mean compete on the same basis that the Commonwealth & Southern Company under Mr. Willkie competed with the Tennessee Valley Authority. That is what we propose, but business refuses it because the risks are too great.

A PLAN FOR EXPANSION

No curtailment of business opportunities is suggested. Quite the contrary. There were never so many private business opportunities available in the Tennessee Valley as there are today. If so many consumers have been created in the Tennessee Valley there must be millions more to be created in the Missouri Valley and all the other river valleys.

When we can go to our workers and say frankly, "Look, Jack, you are going to get a dismissal wage of 600 bucks. It ought to tide you over. Your union and your employer have a training program to see that you are trained for a new job. We will see that you get the job. There are plenty of employment opportunities in the country." When we can say that in good faith because we have an expanding economy instead of a lot of shibboleths to hand them, then we shall be very glad to cooperate.

C. M. WHITE, Vice President
Republic Steel Corporation

LABOR has consistently been unfriendly toward technological improvements, and on many occasions has fought bitterly against advances that have increased the productivity of labor by reducing man hours per unit of output, eliminated workers and lowered costs of products.

Distrust of technological progress has continued despite the fact that labor itself has profited far more from such progress than any other group. As goods become cheaper in terms of man hours because of developments which reduce the amount of human exertion involved in their production they become more plentiful and more readily available to larger sections of society.

The luxury items of one generation become the commonplaces if not the necessities of the next. New products have constantly appeared and provided new requirements for labor that have more than consumed the manpower displaced by technological advances in other fields. Such progress has not always, unfortunately, been carried on painlessly. It has frequently been attended by social and economic dislocations of a serious if temporary nature severe enough to keep in the minds of many a desperate fear of any change which involves the displacement of labor by mechanical means.

This attitude of resistance to advance has been one of the main stands taken by organized labor since its beginning. More important has been organized labor's campaign to secure for its members more privileges and a greater share of the proceeds of technological advance than are obtained by other sections of society. We have seen laws enacted and government directives issued for the benefit of labor that a few years ago we would have considered fantastic.

ADVANCES FORCED

The inevitable result of these increased privileges may shock but should not surprise either organized labor or government. They are going to discover that they have been fostering or rather necessitating the greatest scramble for technological advance and labor elimination that industry has ever known and at a time when government insists that jobs must be found for the highest level of employment of all times.

Both government and labor have used and are continuing to use every means at their powerful command to force industry into a position of working for labor-saving improvements instead of thinking primarily of producing jobs. Under the combination of existing labor, price and tax regulations, I cannot promise our stockholders a worth-while return on any form of capital expenditure except those deliberately designed to eliminate jobs and to reduce the amount of labor per ton of product.

A few years ago it was generally felt that we could make an expenditure of about $5,000 for a mechanical device that would eliminate the need for one man. Under today's conditions the incentive for eliminating a man has been raised to about $10,000. Because of the tremendous taxes we are paying today it is almost impossible for us to find a new product or an increased facility that will pay as large a return for an equal amount of money invested as we can save by the elimination of jobs.

Labor and government should be considering ways to encourage expenditure by private enterprise for the design and installation of machinery for producing more things to sell. Today, with our virtual confiscatory taxes, we find that a gross profit of 50% on an investment is immediately reduced to approximately 7% by reason of corporation and excess-profits taxes, and a 7% return after paying interest on the money is certainly no incentive for risk when due to the unknowns which are facing industry the risks are so great.

There is much for Congress and the administrators of the government to do along this line and they should be urged on by labor instead of being subjected to pressure on the ground that companies' earnings before taxes are so terrific that there is an ample cushion for wage increases and price decreases and that renegotiation and repricing are necessary to recapture for government and labor a fair share of corporate profits.

NEED FOR JOBS

Logic and history both indicate that a period of forced technological advance lies ahead which will work for the ultimate good of every segment in society. It will, however, bring about a period of terrific dislocation and confusion at the very time when, under the necessity of inducting millions of men back into industry from the Armed Forces and finding useful employment for millions more who have been engaged on war jobs, we can least afford such confusion.

There is much talk about full employment for 60 million people which leads many to think these must all be absorbed by manufacturing industry. As a matter of fact, as shown by Census statistics for

1939, less than 23% of our employment in 1939 was in manufacturing industry. Based on the 1939 distribution of jobs, at least 77% of the 60 million jobs must be provided outside manufacturing industry. Industrial employers estimate an increase in jobs of 30% over the 1939 level. If this can be realized there will be 2.9 million more manufacturing jobs than in 1939 but 3.3% fewer than at present. There would remain 13.2 million jobs to be found outside manufacturing industry —a 39% increase over 1939. Can the pent-up demand for many necessities, conveniences and services now unobtainable support a 30% rise in manufacturing jobs and a 39% rise in nonmanufacturing employment?

These demands will certainly not support a prosperous economy if the articles cost more than the farmer, schoolteacher and the returned serviceman can afford to pay for them.

Demand for these products would not support an employment level of 60 million or anything approaching that figure if the workers in industry demand and get a greater reward than the millions of workers outside industry can afford to pay in return for such products. Nor can we compete in world markets with goods whose prices are based on unprecedented wage rates. Labor leaders, Congressmen and bureaucrats might well be working for a balanced economy, by which I mean an income for farmers and nonindustrial workers which would enable them to buy unprecedented quantities of goods and services. They would be well advised to favor technological advances which would permit manufacture for export at costs and prices which would get business for this country and make a profit for the large segment of our population that constitutes the ownership of our industry.

LABOR MUST HELP

Unfortunately, my company is forced more than ever before to work not to provide but to eliminate jobs. The only way we can survive is to offset the inflated cost of labor. Rapid technological advance in spite of labor but also almost entirely because of labor is the only salvation for our industrial system.

The labor movement has made amazing progress in the last ten years. Its membership has risen to heights never before dreamed of. It has attracted highly paid men who are making union administration a profession. It thinks it has practically got control of the government and it depends on government to further its gains. There is no longer collective bargaining. Every possible dispute is referred to the government, particularly by the CIO, with the demand that the government take over control of our plants. This will eventually lead to the government controlling organized labor instead of organized labor controlling government. Labor should distrust and avoid government control as much as industry distrusts and seeks to avoid it.

LOUIS WALDMAN
Counsellor-at-Law

CERTAIN FACTS regarding this problem ought not to be in dispute. One fact abundantly supported by history, economics and experience is that technological advance in the long run is beneficial to society, and labor is a large part of society.

A second fact is that in the immediate view of the problem labor is the last of the three mainly affected groups to enjoy the advantages resulting from technological improvements. Business in the first instance makes arrangements to derive benefits from the installation of new machinery or methods. Subject to market and competitive conditions, it can determine the time and circumstances when the change shall take place.

If business is to retain this initiative it must recognize its responsibility to the community and to labor. It cannot take the position that what happens to the hundreds or thousands of displaced workers is not its concern because the foundation on which business rests is the composite will of the community. For self-protection if for no other reason business owes it to itself to assume social responsibility with regard to the displacement of workers.

The consumer, of course, frequently benefits from technological advance—his advantage being the greater the more markets and competition are free. Labor is not immediately and directly the beneficiary of such change unless special steps are taken. This is so obvious that I will not expand upon it.

The third fact that is abundantly supported by history and experience is that labor by and large has resisted harmful technological changes—that is, harmful to it although conceivably beneficial to society. No matter what the philosophic justification of greater efficiency or the ethical considerations involved in not resisting certain obvious advantages to industry, the man whose job is threatened and whose skill is about to be destroyed will resist, because men do not live by philosophies, they live by daily experiences and reactions.

COURT CASES

For many years, and even today, many industrialists and lawyers have regarded the courts as the proper forum for determining what is and what is not a lawful objective for which labor may strive by collective action. After many years it was settled in our courts that workers may organize and strike for better wages, shorter hours and better working conditions. These were deemed lawful objectives. But it was thought by some that for a union to resist by concerted action the introduction of machinery which would replace labor was not a lawful objective.

A dramatic case on this point was decided in the New York courts over three years ago. A semi-philanthropic company was organized to take grand opera to small communities. To avoid the expense of taking a full orchestra on the tour it had excellent recordings made of the orchestral music. The American Federation of Musicians persuaded the stage hands' union to have its members refuse to handle the scenery unless the orchestral music was provided by live musicians. An injunction was sought to restrain the musicians' union from requiring the employment of live musicians. A New York Supreme Court granted the injunction on the ground that the musicians were pursuing an unlawful objective. The Appellate Court, by a decision of three to two, reversed the lower court. The Court of Appeals ruled, four to three, that the injunction should have been sustained. The majority held that while it was legitimate for organized labor to refuse to work alongside of or with a machine which replaces labor, the effort of a union to protect jobs by make-work rules, as exemplified in this case, was not reasonably related to conditions of employment and therefore was an illegal objective. The dissenting opinion, written by Chief Justice Lehman disputing the majority's conclusions of economics and law, was one of the most vigorous I have read.

COURTS NOT PROPER FORUM

Two other cases have arisen even more recently. One in Illionis, also affecting the musicians' union, concerned a charge that the union was preventing technological advance to the detriment of the community and of employers. Before it went to trial, a federal court held that unions may not be held to have violated the Sherman antitrust act or any other statutes when they refuse to allow machines to replace labor. The finding of a Florida court in a case concerning the use of a paint spray gun was substantially the same.

I think it is thus fair to conclude that from the standpoint of business management the courts are not a good forum for deciding this matter. It is not the proper function of courts to decide and declare what is and what is not sound public policy. Under our form of government that is reserved to Congress and the legislatures.

RESTRICTIVE LEGISLATION

But is the legislature the tribunal to which to carry this problem? I think not. I don't think Congress will outlaw labor activity in this field. And it should not because the realities of the situation indicate that every technological advance made by industry affects labor directly. Labor has a stake in technological progress and therefore labor organizations must have the legal right to bargain on this issue. Therefore, the sound view seems to be that Congress will not and should not act in this matter in order that the balance of free action in a free society may be unimpaired by restrictive legislation. It is a matter of record that restrictive legislation has a bad way of exploding in the faces of the restrictors with unfortunate consequences.

Where then shall we go? The reasonable answer seems to be voluntary cooperation as a result of collective bargaining. This statement might have been questioned a few years ago when organized labor represented a comparatively small proportion of the industrial working force. But now 15 million Americans are organized in trade unions. Voluntary cooperation now means agreement arrived at at the conference table. Voluntary agreement is the only alternative to coercive legislation. Many unions and industries have undertaken to solve this problem this way. Unfortunately there are some that still resist. So while labor is resisting technological advance the employer is resisting an attempt to solve the technological problem by working it out with labor.

THE CONFERENCE WAY

When I say, "sitting down at a conference table," I do not mean a joint board of management and labor. I am not convinced that any form of joint management is feasible. I view a labor organization as the advocate of its constituency and it should always remain free to fight for the people it represents. It is not always wholesome either in the interest of maintaining responsible leadership in the unions or of maintaining good management to set up some sort of an intermeddling joint committee. For one thing the union representatives sometimes have to sell management's program to their constituency. Joint committees have been tried and have not always proved the best road to democracy.

There is a fourth alternative, really part of the third, and that is a program of education. Every constructive conference on this subject, every educational medium can help toward securing a more realistic appreciation of the problems and values involved.

The answer to the problem in detail in each particular instance is one in which labor and management must jointly and democratically solve the consequences flowing from technological advance. If this program does not seem to give the kind of answer which is an absolute surefire solution it is because there is no surefire answer. The answer must grow with the wisdom, the tolerance, the understanding and the mutual trust that both labor and management can bring to all the problems that concern survival.

Trends in Collective Bargaining

Rules and Regulations

One of America's largest heavy industries has negotiated work rules with its bargaining unit, a CIO union. This inclusion of work rules in union contracts is becoming more prevalent.

Under this particular set of rules the company agrees to erect and maintain bulletin boards throughout the plant for union use which may not, however, be used for propaganda of any sort. They will be used to post news of union meetings, elections and social and other events of general interest. The superintendent or his representative is to approve all material posted.

Work of employees covered by the contract is not to be performed by the superintendent, assistant superintendents, foremen, assistant foremen, time study men, administrative office employees, and salaried employees. Seniority and qualifications will govern all promotions within the bargaining unit. Female employees in the bargaining unit are to receive a fifteen-minute rest period in the morning and fifteen minutes in the afternoon without loss of pay. Their uniforms purchased from the company shall cost no more than five per cent for handling charge and sales tax above the wholesale price. The company will make light-weight uniforms available for summer wear. Pregnancy leaves are allowed up to twelve months. Union representatives who negotiate with management, or carry on other like duties will not lose time in so doing in computing service and attendance records under the regulations of the company's vacation plan and extra compensation plan.

Employees promoted to positions not covered by the contract, who later are demoted, will not lose seniority rights. Union representatives have the opportunity to review all contemplated layoffs.

When an operation is moved from one department to another, the employee who has been doing the work has the opportunity of transferring with the job.

Employees are allowed fifteen-minute lunch periods without loss of pay, on any shift, where the machine or equipment must be shut down while workers eat.

Employees' personal physicians are entitled to receive a copy of the report indicating the results of a physical examination or laboratory test by physicians acting for the company.

The union committee will receive an up-to-date plant-wide seniority list from the company every six months, and the company agrees to keep an up-to-date departmental seniority list posted in each department.

In cases where overtime is required in any department, it will be divided among all employees in the department qualified to do the work. Management agrees to provide adequate and modern safety and sanitation devices.

Any recommendations or complaints are subject to the regular grievance and arbitration procedure of the union contract.

Transfers and Rehiring

An agreement negotiated between a large utility company and the International Brotherhood of Electrical Workers (AFL) indicates that when there are intradepartmental rearrangements of personnel in order to establish a longer work week to meet a government order, employees who are transferred to a lower grade of work will not have their wage rate reduced unless the rate exceeds the classified maximum for the new job by more than 5%. Any differential thus established will be eliminated if the maximum classified rate for the new job is raised or the employee is subsequently promoted to a higher-rated job.

Workers transferred from one department to another as a result of the war emergency shall not lose their seniority rights on jobs they formerly held. No change in classification or wage rate will occur when an employee is given a higher grade of work than that specified for his regular classification for less than three consecutive work days. If the temporary work is for three or more consecutive work days his classification and wage rate are to be adjusted for the entire period of such work.

A rehiring clause states that "if the employee is offered employment of substantially the same type and grade of work performed by him prior to the layoff and he refuses to accept it, there shall be no further obligation on the part of the company to offer him any other employment at a future date."

The company may require a physical examination of a laid-off employee, but if the physical condition of the employee is substantially the same as when laid off he will be rehired without any bar. An employee has the right to consult his own doctor.

Division of Work

Employees who entered the employment of a large eastern shipbuilding corporation subsequent to October 3, 1940, may be transferred or laid off so that employees who first entered the employment of the corporation prior to October 3, 1940, will not be laid off or have their hours reduced to fewer than forty a week.

Under the terms of this agreement with the Industrial Union of Marine and Shipbuilding Workers (CIO), as work diminishes in any craft or classification, the corporation agrees to transfer as many of the employees remaining as it can, so that their hours of work will not be reduced to less than forty. If the work available is insufficient, the corporation shall divide what there is equally among all remaining employees in the craft or classification by reducing the hours worked during the week, or by rotating employees week by week, or by doing both. However, no employee shall receive less than the equivalent of three days of eight hours each per week.

When employees who first entered the employment of the corporation prior to October 3, 1940, have to work less than the equivalent of four eight-hour days a week, for an aggregate of eight weeks, in the twelve months beginning with the first such week, the corporation will transfer or lay off a sufficient number of employees to permit the remaining employees to obtain the equivalent of four eight-hour days a week for any additional four weeks. The corporation and the union shall, at the request of either, discuss and agree upon what further action shall be taken.

Employees laid off or transferred owing to lack of work shall not be reinstated in their former position unless all employees within the craft in the department and those reinstated are working full time.

Job Bidding and Posting

Job vacancies or newly created jobs are posted on bulletin boards in all departments of a plant that operates under an AFL chemical union contract. Bids for the posted jobs are received for a period of five working days and appointments made within five working days after the bidding is closed.

Employees are to supply the union with a copy of the bid. When skill, knowledge and experience are relatively equal, the senior qualified employee will be accepted by management for the job. A worker not qualifying for his new position within a trial period of thirty days will be returned to his former job.

Posting of new jobs does not apply to confidential and supervisory employees, nor to temporary emergency appointments. An employee whose rate is in excess of the evaluation of the job may be transferred to an open position paying the same or more than he was receiving—as long as the rights of other employees with greater seniority and qualifications are not involved.

Tardiness

Penalties for lost time are provided in a contract between an aircraft company and an international union representing the production employees.

The clause states:

> "1. A penalty of one-tenth of an hour will be given an employee who punches 'IN' from one to six minutes late. For tardiness beyond six minutes the regular procedure of six-minute intervals will apply; *i. e.*, up to twelve minutes, minus two-tenths of an hour; up to eighteen minutes, three-tenths of an hour; up to twenty-four minutes, four-tenths of an hour, etc. If an employee is not more than eighteen minutes tardy, this time will be deducted from his straight-time hours. If he is tardy in excess of eighteen minutes, he shall not receive overtime pay until he has worked a full eight hours.
>
> "2. An employee's failure to punch the time card will be brought to the foreman's attention in which case such employee will be required to prove he was at work during the time in question. This card will then bear the approval of the foreman or the person designated to secure this approval."

Canadian AFL Aims

Among the proposals included in the current report of the standing committee on postwar rehabilitation and reconstruction of the Trades and Labor Congress of Canada (the AFL arm in Canada) are the following:

> A minimum annual income of $1,500 a year;
>
> A maximum forty-hour week with the ultimate aim of a thirty-hour week with no reduction in earnings;
>
> Noncontributory sick and invalidity insurance with compensation during illness;
>
> Two weeks' holiday with pay;
>
> Cheap transportation to health and recreational centers;
>
> A school-leaving age of at least 16 years in every province;
>
> Free educational opportunities up to and including university;
>
> A pension system based on a national minimum standard to begin at sixty;
>
> Extension of the present housing act, with all loans to be made directly through a government agency;
>
> A slum clearance program with a greater share of the cost to be borne by the federal government;
>
> And more generous unemployment insurance provisions.

The AFL in Canada leans toward government action to a greater degree than the AFL does generally in the United States. Although the AFL in the United States is active in sponsoring social security legislation, such as the Wagner-Murray-Dingell bill, the Canadian AFL program includes many of the planks of the Cooperative Commonwealth Federation, the political labor party of Canada.

Organizing at Donnelly's

With industry members dissenting, the War Labor Board ordered R. R. Donnelly and Sons in Chicago to recognize union representatives handling grievances for any of its employees whether or not the worker is a member of a certified bargaining unit. Various branches of the AFL printing trades unions are represented by certified bargaining units at the Donnelly company.

For many years, AFL unions have undertaken periodic organization drives at the Donnelly Chicago plant—and now with evident success. The present drive has been conducted by the AFL's organization committee of the Chicago printing trades unions, with the assistance of other unions in the Chicago area. It will probably be followed by a campaign for union-shop contracts in keeping with the belief of nineteen out of twenty leaders who have privately expressed themselves in favor of union-shop clauses in collective bargaining contracts. The exception was stated by a textile union leader in Canada who thought that all workers should belong to a union, but not through a closed or union-shop provision.

A few top-ranking labor leaders have periodically indicated that they would not insist on union-shop or closed-shop clauses if there were a permanent acceptance of collective bargaining by all employers.

Abraham A. Desser
Management Research Division

Wage and Salary Stabilization

The WLB Shipbuilding Commission has directed in the case of the General Engineering and Drydock Company, Alameda, California, and the Architects, Engineers, Chemists and Technicians (CIO) that in applying the merit increase provisions of General Order No. 31 all employees in draftsman classifications, from junior draftsman to chargeman inclusive, may be included in a group to whom the five-cent per hour per year average merit increase ruling may be applied. The draftsman classifications and rates directed are as follows:

Job Classification	*Pay Range per Hour*
Beginner draftsman 1st 60 days	$ .88
After 60 days	.98
Junior draftsman	1.08
Assistant draftsman	1.20
Senior draftsman	1.30–1.35
Layout draftsman	1.40–1.58
Designer draftsman	1.60–1.83
Chargeman	2.08

FAVORS SINGLE RATES

The San Francisco Regional WLB has taken the stand that single rates are more stabilizing than rate ranges and will sanction the establishment of rate ranges only in the following cases:

1. Where rate ranges were already in existence before October 2, 1942;
2. Where rate ranges are typical in the industry involved;
3. Where rate ranges are typical for particular job classifications even though the industry may follow a single-rate pattern.

Application of these criteria by the San Francisco Board resulted in a denial of permission requested by Rheem Research Products, Inc., to set up rate ranges at a newly established plant in Los Angeles, California.

Employer members of the board have taken strong exception to the policy of favoring single rates. In a dissenting opinion in the Rheem case they stated that the policy is "inconsistent with wage stabilization regulations and with the administration of those regulations."

The national board has not issued any statement of broad policy on the question of single rates *vs.* rate ranges. However, it did indicate by its directive instituting single rates in place of rate ranges in the case of the Bijur Lubricating Company that it will order single rates in particular cases.

HIRING RATE RULING AMENDED[1]

A new application of the "rare and unusual" case doctrine has been devised by the WLB as a method of assisting the War Manpower Commission in channeling into critical war plants employees whose skill and experience for a particular job were compensated on their last job at higher rates of pay than a particular employer can pay under General Order No. 31. The new application takes the form of an amendment to G. O. 31 dated January 26, to allow employment, under certain conditions, of more than 25% of the employees hired for a given job classification during a given year at rates in excess of the minimum of the applicable pay range. The amendment is provided in Section II-F-3, a new section in Order 31. It is reproduced here in full:

"3. CRITICAL OR ESSENTIAL WAR WORK

"(a) Whenever the War Manpower Commission certifies in writing to an agent of the National War Labor Board that a particular employer is (1) actually engaged in critical or essential war work, (2) observing all the rules and regulations of the War Manpower Commission, and (3) faced with a critical hiring problem due to the limitations of subsection 1 and 2 above, the agent of the Board shall authorize, within 5 days after the certification is received (provided the Board agent does not stay the effective date within the 5-day period) such employer to hire, without regard to such limitations, employees laid off or discharged from their last positions because of a cutback or elimination of essential war work or employed in noncritical or nonessential work, as stated in the certificates of referral of the War Manpower Commission presented by such employees. Such employees shall not be included in computing the number of employees who may be hired at rates in excess of the minima of the rate ranges under subsections 1 and 2 above.

"(b) Any employee hired in accordance with the provisions of this subsection 3 may be hired by the employer at any rate within the appropriate rate range for his job classification corresponding to his ability and experience; provided that, if the rate received by any such employee in his last position was below the minimum of the appropriate rate range of his new employer, he shall be hired at a rate no lower than the minimum rate of such rate range, and he shall not be hired at a rate above such minimum rate unless the hiring is made subject to the provisions of subsection 1 or 2 above.

"(c) The War Manpower Commission shall submit monthly to the Wage Stabilization Division of the Board . . . a report of such hirings, which report shall include (1) name and address of hiring employer, (2) name of employee hired, (3) date of hiring, (4) nature of job for which hired, (5) rate range of job for which hired, (6) rate at which hired, (7) nature of job last performed, (8) rate received on job last performed, (9) name and address of last employer."

E. S. Horning
Management Research Division

[1] Details of previous rulings on this point are given in the October and December, 1944, issues of *The Conference Board Management Record* under "Wage and Salary Stabilization."

Living Cost Indexes on Wartime Budgets Discontinued

SINCE May, 1943, two series of indexes measuring changes in living costs in the United States and in individual cities have been presented in this publication.

One series used pre-World War II budgets for weighting purposes, and was a continuation of the indexes available prior to January, 1942. This series recorded changes in costs of fixed budgets which were continuously comparable.

By using variable weights, the second series, which was linked to the first series in January, 1942, reflected the measurable effects of rationing and shortages on purchasing habits.[1] These indexes have been discontinued beginning with this issue, in which January, 1945, data are presented. The detailed tables, on pages 54 on, therefore show the prewar budget series, and the summary table, which heretofore followed the detail tables, has been eliminated.

COMPARISON OF SERIES

Analysis of the two series of indexes shows little comparative variation for the period covered. The accompanying chart compares the United States indexes for "all items" and for the major budgetary components from January, 1942, through December, 1944. No comparative data for the housing and clothing components are shown, since adjustments made for wartime conditions were the same for both series.[2]

In the "all items" index, the maximum deviation between the two series in any month was three-tenths of one point, in April, June, July, and August, 1943. The average deviation without regard to plus and minus signs over the three years is only one-tenth of one point. If signs are taken into consideration, the average deviation is only two-thirds of one point. Furthermore, in nine of the thirty-six months, the indexes are identical.

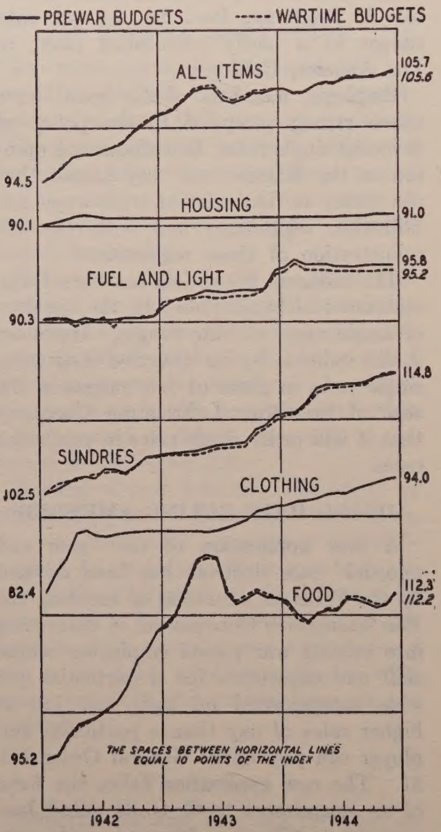
As might be expected, deviations between the two series for individual components are greater, but even so they are not substantial.

Among individual cities, the differences increase, but, again, they are relatively small. The "all items" indexes in December, 1944, for the sixty cities on the January, 1939=100 base, show a maximum difference between the wartime budget series and the prewar budget series of plus five-tenths of a point and minus two-and-three-tenths points. Two cities show no difference, and in fifty-five the wartime budget indexes are slightly lower. Individual components display offsetting relationships which reduce the net difference in the "all items" indexes. Food, the most heavily weighted component, has in December, 1944, differences ranging from +2.9 to −1.9; the wartime exceeded the prewar indexes for thirty-nine cities, and for three cities they were the same. An opposite tendency occurs in sundries, the second most heavily weighted component, where the range is from +0.6 to −6.6, and the prewar is greater than the wartime indexes for 58 cities.

Cost of Living in the United States

Source: The Conference Board

Index Numbers, 1923=100



Compiling of indexes over a period of three years has shown insufficient variation between them to warrant the maintenance of the two series.

REASONS FOR CHANGE

The wartime indexes have been selected for elimination in the first place because they represent a departure from standard practices in cost of living index-number construction. For many years, such indexes have used for weighting purposes fixed budgets derived from surveys of actual expenditure habits of families of wage earners and lower-salaried clerical workers. The weights derived from these basic budgets were not changed, except where redistribution was made to allow for the disappearance of individual items, until such time as a new survey was completed. The last comprehensive survey of expenditures suitable for the purpose was made in 1934-1936 and was preceded by one in 1918-1919. Thus, about seventeen years elapsed between these two basic studies. The Congress has been requested to appropriate funds for conducting another survey in the immediate future. If funds are appropriated, new data on expenditure patterns will be available covering a period about ten years after that covered by the previous study. These new data would be used by The Conference Board to alter the basic weights employed in constructing its cost of living indexes.

When the 1934-1936 study was used to revise the weights for the cost of living index of the United States Bureau of Labor Statistics, the resultant indexes differed only slightly, in the comparative overlapping periods, from the previous series which had used the 1918-1919 survey for the purpose. This result was possible because price changes, to a very high degree, govern the movements of the index, so that the weights employed can be altered to a considerable extent without any substantial effect. This fact also in large measure accounts for the similarity in change displayed by the wartime and prewar budget series.

Secondly, the wartime budget indexes are based on a method of estimating expenditure patterns rather than on actual conditions. This procedure, which had to be followed since no actual wartime survey was available, involved the adjust-

(*Continued on page 45*)

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[1] For a description of the indexes on wartime budgets see "Living Costs Under a Wartime Budget," *The Conference Board Management Record*, May, 1943, pp. 198-209; also September, 1943, p. 392.

[2] Explained in *The Management Record* for May, 1943.

SIGNIFICANT LABOR STATISTICS

Source: The Conference Board, unless otherwise indicated

Item	Unit	1945	1944						Percentage Change	
		Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	Year Previous	Latest Month over Previous Month	Latest Month over Year Previous
Absence rates in manufacturing (*BLS*)	per 100 employees	....	....	....	6.2	6.3	6.6	6.2	-1.6	0
Clerical salary rates										
Billing machine operator	mode in dollars	....	....	....	25.00	....	....	....	....	....
Calculating machine or compt'ter operator	mode in dollars	....	....	....	28.00	....	....	....	....	....
Office boy or girl	mode in dollars	....	....	....	20.00	....	....	....	....	....
Stenographer	mode in dollars	....	....	....	30.00	....	....	....	....	....
Telephone switchboard operator	mode in dollars	....	....	....	30.00	....	....	....	....	....
Senior copy typist	mode in dollars	....	....	....	28.00	....	....	....	....	....
Cost of living[1]										
Food	1923=100	112.1	112.3	111.1	110.8	111.3	111.6	111.5	-0.2	+0.5
Housing	1923=100	91.0	91.0	91.0	91.0	90.9	90.9	90.8	0	+0.2
Clothing	1923=100	94.2	94.0	93.9	93.6	93.2	93.0	91.2	+0.2	+3.3
Men's	1923=100	103.4	103.0	102.9	102.4	102.3	102.1	100.4	+0.4	+3.0
Women's	1923=100	84.9	84.9	84.8	84.8	84.0	83.9	82.0	0	+3.5
Fuel and light	1923=100	95.8	95.8	95.8	95.8	95.8	95.7	95.6	0	+0.2
Electricity	1923=100	66.9	66.9	66.9	66.9	66.9	66.9	67.0	0	-0.1
Gas	1923=100	94.5	94.5	94.5	94.5	94.5	94.5	94.6	0	-0.1
Sundries	1923=100	114.9	114.8	114.6	114.2	113.8	113.6	110.7	+0.1	+3.8
All items	1923=100	105.7	105.7	105.3	105.0	105.0	105.0	103.9	0	+1.7
Purchasing value of dollar	1923 dollars	.946	.946	.950	.952	.952	.952	.962	0	-1.7
All items (*BLS*)	1935-39=100	....	127.0	r 126.6	r 126.5	126.5	126.4	124.4	+0.3	+2.1
Employment and unemployment										
Employment over economic labor force	thousands	....	p 5,962	p 6,948	8,212	8,618	8,372	6,395	-14.2	-6.8
Total employment	thousands	....	p 62,375	p 63,317	64,540	64,904	64,615	62,297	-1.5	+0.1
Agriculture, forestry, fishing	thousands	....	p 8.831	p 10,184	11,444	11,623	11,006	9,034	-13.3	-2.2
Total industry	thousands	....	p 21,047	p 21,052	21,162	21,316	21,520	22,115	0	-4.8
Manufacturing	thousands	....	p 15,009	p 14,945	15,057	15,231	15,369	16,339	+0.4	-8.1
Trade, service, miscellaneous	thousands	....	p 32,496	p 32,081	31,934	31,964	32,088	31,149	+1.3	+4.3
Strikes (*BLS*)										
Beginning in period	number	....	p 280	375	440	390	485	355	-25.3	-21.1
Workers involved	thousands	....	p 85	200	220	185	190	263	-57.5	-67.7
Total man days idle	thousands	....	p 380	710	690	660	935	787	-46.5	-51.7
Turnover rates in manufactur'g (*BLS*)										
Separations	per 100 employees	....	....	p 6.0	6.4	7.6	7.8	6.4	-6.2	-6.2
Quits	per 100 employees	....	....	p 4.5	5.0	6.1	6.2	4.5	-10.0	0
Miscellaneous	per 100 employees	....	....	p .3	.3	.3	.4	.6	0	-50.0
Discharges	per 100 employees	....	....	p .6	.6	.6	.7	.6	0	0
Layoffs	per 100 employees	....	....	p .6	.5	.6	.5	.7	+20.0	-14.3
Accessions	per 100 employees	....	....	p 5.9	6.0	6.1	6.3	6.6	-1.7	-10.6
Wage earners										
All manufacturing industries (*BLS*)										
Earnings, hourly	average in dollars	....	....	1.033	1.031	r 1.032	1.016	.996	+0.2	+3.7
weekly	average in dollars	....	....	46.80	r 46.94	r 46.24	45.88	45.32	-0.3	+3.3
Hours per wage earner	average per week	....	....	45.3	r 45.5	r 44.8	45.2	45.5	-0.4	-0.4
Twenty-five manufacturing industries										
Earnings, hourly	average in dollars	....	1.085	r 1.079	1.079	1.080	1.070	1.045	+0.6	+3.8
weekly	average in dollars	....	49.82	r 49.42	49.39	49.42	48.98	47.15	+0.8	+5.7
Hours per wage earner	average per week	....	45.8	45.6	45.7	45.6	45.6	45.1	+0.4	+1.6
Employment	1923=100	....	137.7	r 137.8	138.6	140.4	141.6	154.0	-0.1	-10.6
Total man hours	1923=100	....	128.2	r 127.7	128.8	130.2	131.3	141.2	+0.4	-9.2
Payrolls	1923=100	....	257.8	r 255.9	257.2	260.7	260.7	272.9	+0.7	-5.5
Wage-rate increases	average per cent	....	5.8	6.8	5.3	5.4	6.0	4.1	....	....
Workers affected	per cent	....	0.1	0.4	0.1	0.3	0.4	1.4	....	....
Manufacture and distribution of gas										
Earnings, hourly	average in dollars	....	....	....	....	....	a 1.012	.952	....	+6.3
weekly	average in dollars	....	....	....	....	....	a 46.44	42.02	....	+10.5
Hours per wage earner	average per week	....	....	....	....	....	a 45.3	43.8	....	+3.4
Generation and distribution of electricity										
Earnings, hourly	average in dollars	....	....	....	....	....	a 1.136	1.087	....	+4.5
weekly	average in dollars	....	....	....	....	....	a 51.93	47.87	....	+8.5
Hours per wage earner	average per week	....	....	....	....	....	a 45.3	43.9	....	+3.2
Class I railroads[2]										
Earnings, hourly	average in dollars	....	....	....	.981	.980	.967	.881	+0.1	+11.4
weekly	average in dollars	....	....	....	52.40	51.48	51.71	46.49	+1.8	+12.7
"Real" weekly earnings	1923=100	....	....	....	168.3	165.3	166.0	151.4	+1.8	+11.2
Hours per wage earner	average per week	....	....	....	53.4	52.5	53.5	52.8	+1.7	+1.1
Agricultural wage rates per month[3] (*BAE*)	average in dollars	80.25	....	....	80.50	....	....	68.08	....	+17.9
With board	average in dollars	74.60	....	....	76.40	....	....	63.01	....	+18.4
Without board	average in dollars	88.90	....	....	86.80	....	....	76.06	....	+16.9
New York City metro. area, eighteen manufacturing industries										
Earnings, hourly	average in dollars	....	1.095	r 1.090	r 1.090	1.089	1.081	1.045	+0.5	+4.8
weekly	average in dollars	....	50.48	r 49.81	r 50.14	r 49.77	49.62	47.34	+1.3	+6.6
Hours per wage earner	average per week	....	46.1	r 45.7	r 46.0	r 45.7	45.9	45.3	+0.9	+1.8

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[1] Wartime budget indexes have been discontinued—see article page 42. Indexes here published are on a prewar basis.

[2] Derived from Interstate Commerce Commission reports.

[3] As of first day of month.

a July, 1944.

p Preliminary.

r Revised.

Chronology of Labor Relations

January

5 *Veteran Placements Increase*

During 1944 job placements for veterans totaled 728,400, according to the War Manpower Commission, as compared with 317,600 in 1943.

6 *National Service Legislation Again Proposed*

In his fourth wartime message on the state of the union, the President repeats the request made a year ago that national service legislation be passed to cope with critical labor shortages in important war industries.

Army Physical Standards Reduced

Selective Service Headquarters announces that Army has drastically lowered its physical standards for the specific purpose of permitting induction of physically defective men who leave the war jobs for which they are occupationally deferred. New regulations do not apply to the four million men in the 4-F classification.

Urban Wage Rates Rise

Department of Labor announces that basic wage rates in urban manufacturing industries rose 2.2% between April and October, 1944. This compares with 1.9% in the six months preceding.

7 *War Pensions Rise*

Pensions for soldiers disabled in the present war cost $40 million more during fiscal year ending June 30, 1944, than in preceding year.

Textile Minimum Wage Pegged at 55¢

Stabilization Director advises WLB that "at this time" he will not approve a minimum wage rate for the industry higher than 55¢ an hour.

8 *Supreme Court Invalidates Labor Law*

A Texas statute requiring paid union organizers to register with the State Secretary before soliciting workers within the state to become members is declared unconstitutional by the United States Supreme Court by a vote of five to four on the issue of free speech.

Teamsters' Paper Calls for Repeal of Wagner Act

In an article appearing in the magazine of the teamsters' union (AFL), repeal of the Wagner act is urged on the ground that the NLRB has been used by both employers and the CIO to disorganize the teamsters' union.

Use of Occupational Lists Optional

Selective Service officials explain that in considering reclassification of registrants under recent orders, local boards are not obligated to consider lists of essential occupations drawn up by the War Manpower Commission. Local boards have wide autonomy in deciding, in the light of area manpower conditions, whether registrants are in essential industry or are essential to an industry.

9 *New World Labor Organization Suggested*

CIO President Murray says that CIO delegates to the World Trade Union Conference in London will make an effort to pledge the meeting to the immediate organization of a new world trade union federation to which all of the trade unions of the freedom-loving nations will be eligible.

13 *Unions Gain Many Women Workers*

Director of Women's Bureau of United States Department of Labor reports that membership of women in trade unions has increased from 800,000 to more than three million as a direct result of the war.

14 *War Labor Board Reports*

Executive Director of WLB, in report covering period since its establishment, announces that WLB in three years closed about 362,000 voluntary and dispute cases affecting 24 million employees and hundreds of thousands of employers.

Wage Act Violator Penalized

Regional WLB Director announces a disallowance of $100,000 for income-tax purposes as a penalty for the "notorious violation" of the Wage Stabilization Act.

17 *President Urges Prompt Enactment of Manpower Act*

President calls on Congress for prompt action on a work-or-fight bill for men between 18 and 45 since it was vital that Allied "total offense" should not slacken because of any less than total utilization of our manpower on the home front.

20 *Cornell Makes Labor Officials Trustees*

For first time in its existence, Cornell University trustees vote to add three labor members and two state officials to its board of trustees in anticipation of the opening of the New York State School of Industrial and Labor Relations at Ithaca in the fall.

22 *Full Employment Bill Introduced*

Senator Murray (Montana) introduces bill to provide full employment under a national policy and program. The legislation contemplates cooperation of industry, agriculture, labor and state and local governments with the national government in fostering free, competitive enterprise which will provide full utilization of the country's resources and thus assure that those who seek jobs can get them.

Broadened Social Security Act Recommended

Social Security Board outlines broad, all-inclusive security program to protect millions of Americans from the social aftermath of the war. Proposal includes addition of $25 million to old-age coverage.

23 *Labor Utilization Experiment Begun*

WMC tries out plan in Allentown, Pennsylvania, to force workers from nonessential into essential industries. Three hundred and fifty-one workers in nonessential industries are given choice of working in war industries, sometimes at lower wages, or going without employment.

24 *House Committee Reports Out New Draft Bill*

House Military Affairs Committee approves and reports out a "limited national service" bill for men between 18 and 45, after eliminating an amendment which would have prevented any person volunteering for or ordered to take essential war work from having to join a labor union.

27 *Ward Seizure Held Illegal*

Federal District Court in Chicago holds that the President exceeded his authority in ordering seizure of properties of Montgomery Ward & Company because of the company's noncompliance with WLB directives. Judge Sullivan held that the President had no power under either the Smith-Connally act or the authority conferred upon him by the Constitution as Commander-in-Chief to seize "a retail establishment engaged solely in distribution."

29 *Labor Disputes Numerous in 1944*

Bureau of Labor Statistics reports that there were 5,000 strikes and lockouts involving 2,100,000 workers in 1944. Total time lost, however, was one-third less than in 1943.

31 *WLB Foreman Panel Reports*

A panel considering foreman complaints involving thirteen large companies and 7,600 foremen recommends that twelve of the companies set up grievance machinery for their supervisory employees. The panel, however, opposed demands of foremen for arbitration by a neutral referee, voting unanimously that "higher management should not be required against its will to pass over to outsiders questions of disciplining foremen or the selection, advancement, retention or transfer of foremen."

(*Continued from page* 42)

ment of varying food weights for individual cities by a fixed national percentage showing the difference in estimated consumption of specific foodstuffs between 1934-1936 and 1943.[1] Also there was an upward adjustment made in the weight assigned to carfare and busfare on the basis of the percentage difference between the number of passengers carried in 1938 and in 1942-1943. All adjustments were made to allow for the effects of rationing and shortages that could be made, but they nevertheless were based upon estimates, frequently national in scope, and so represented a departure from previously established procedures.

Thirdly, a continuation of the wartime budget basis approach would presuppose the readjustment of the estimated weights each time wartime rationing restrictions or shortages were lifted. Such steps involve procedural difficulties and, in essence, mean an ultimate return to the prewar budget basis, at least until such time as a new survey of expenditures should become available. Since so little difference resulted from the application of the two different weighting methods to the indexes, a continuation of the work load required to maintain the wartime budgets seemed unwarranted.

WHY DUAL BASIS

If changes in weighting systems have little effect upon cost of living indexes for long periods of time, it can logically be asked why the wartime budget basis was prepared and published at all. It was done for two reasons.

Past experience has proved that changes in weights must be substantial before they materially affect the indexes. The only way the applicability of past experience to current circumstances could be proved was to make the change, maintain both series and after an adequate trial period had passed, compare the results.

The second reason is perhaps the more important. When economic conditions begin changing, doubts begin to rise as to the accuracy of an index which uses for weights an expenditure pattern not strictly applicable to current conditions. Apparently, the only temporary way these doubts can be dissipated is to set up the best alternatives possible and study the results.

The ideal procedure would involve making new expenditure surveys, say, every five years and thus provide complete and specific data for adjusting types and quantities of items to be priced. Unfortunately, however, comprehensive budgetary studies are exceedingly laborious and expensive. Until new and less costly methods for obtaining them are devised, they are not likely to be made as frequently as could be desired.

R. A. Sayre
Division of Labor Statistics

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[1] For more details see *The Management Record* for May, 1943.

Payroll Statistics in Manufacturing

NEW PEAK levels of hourly and weekly earnings were established in December for wage earners in the twenty-five manufacturing industries surveyed each month by The Conference Board.

The average work week was longer in December, remaining fractionally below the recent peak of June, 1944; it was the same as during April, 1930, and lower than during most months before then.

"Real" weekly earnings advanced to a secondary peak slightly lower than the June, 1944, high point. Employment declined for the thirteenth consecutive month, although man hours worked and payrolls rose fractionally. Wage-rate increases affected relatively few workers.

EARNINGS AND HOURS

Average hourly earnings rose 0.6% to a new peak level in December, largely as a result of more overtime compensated at premium rates. At $1.085, they exceeded earnings per hour in August, 1939, by 50.7%, and those in January, 1941, by 43.0%. The average work week in December consisted of 45.8 hours—0.2 hour, or 0.4%, longer than in November; 7.9 hours, or 20.8%, longer than in August, 1939; and 5.6 hours, or 13.9% greater than in January, 1941.

Weekly earnings showed the combined effect of both higher hourly earnings and longer working hours. They increased 0.8% in December and attained another new peak level of $49.82. The average weekly income of wage earners in the twenty-five industries has advanced 82.6% since August, 1939, and 62.8% since January, 1941. Because dollar weekly earnings increased more than living costs from November to December, the purchasing power of dollar weekly earnings rose 0.4%. At 177.1 (1923=100) in December, they were only 0.1% below the June, 1944, peak and higher than in any other month. "Real" weekly earnings of these workers have thus risen 45.0% since August, 1939, and 32.5% since January, 1941.

Wage-rate Increases and Workers Affected

Source: The Conference Board

Date	25 Manufacturing Industries	
	Wage Earners Affected	Wage-rate Increase
1943		
December	1.4%	4.1%
1944		
January	0.3	5.9
February	0.9	8.7
March	0.4	6.9
April	0.6	5.7
May	0.4	6.0
June	0.3	7.0
July	0.8	5.3
August	0.4	6.0
September	0.3	5.4
October	0.1	5.3
November	0.4	6.8
December	0.1	5.8

EMPLOYMENT

Employment was curtailed in December for the thirteenth successive month. In declining 0.1% from November to December, the number of employed workers in these industries averaged 137.7 (1923=100), which was only slightly above the May, 1942, average and lower than during any month since then. From August, 1939, to December, 1944, employment gains have totaled 61.1%, and since January, 1941, 22.9%.

MAN HOURS

Despite reductions in employment in December, more man hours were worked and larger payrolls were disbursed than in November. Because of the generally downward trends that have prevailed through 1944, the December levels were lower than those of a year before. They were, however, higher than those in January, 1941, and August, 1939. Man hours have increased 40.1% since the base date of the Little Steel formula and 94.8% since the

(*Continued on page 51*)

REVISED INDEXES OF MAN HOURS, 25 MANUFACTURING INDUSTRIES, 1936–1944

1923 = 100

Source: The Conference Board

Period	25 Industries	Agricultural Impl't	Automobile	Boot and Shoe	Chemical	Cotton: North	Electrical Mfg.	Foundries[1]	1. Foundries	2. Machines, Machine Tools	3. Heavy Equipment	4. Hardware, Small Parts	5. Other Products	Furniture	Hosiery, Knit Goods	Iron and Steel	Leather Tanning[2]	Lumber, Millwork	Meat Packing	Paint and Varnish	Paper and Pulp	Paper Products	Printing: Book, Job	Printing: News, Magazine	Rubber	Silk and Rayon	Wool
1936	72.0	94.7	80.3	73.4	88.1	31.4	83.5	70.6	66.2	75.9	40.1	85.9	80.5	76.9	91.7	71.9	68.1	49.5	78.0	116.8	88.6	98.6	85.7	91.8	70.8	68.7	62.8
1937	78.9	117.0	87.6	81.7	96.7	36.2	97.3	83.5	78.4	93.3	54.0	95.5	93.9	84.5	95.1	74.9	68.2	52.2	76.9	114.8	93.0	109.9	95.7	98.3	70.0	70.8	59.9
1938	55.8	73.7	48.1	68.2	78.0	27.4	58.0	52.5	39.7	60.0	34.7	61.5	63.3	60.9	75.2	42.7	51.8	41.0	73.0	92.9	78.5	96.8	83.7	88.5	49.9	61.3	45.4
1939	67.7	81.7	67.6	77.9	87.1	34.1	80.2	66.4	58.9	73.9	42.5	78.8	76.2	75.2	80.3	59.1	64.2	48.6	73.2	100.9	89.5	106.8	84.8	84.3	69.3	72.4	57.6
1940	78.3	100.2	82.3	69.5	99.8	36.3	111.4	90.8	83.0	108.8	58.0	101.5	99.5	86.3	71.8	70.4	63.5	51.3	80.9	101.7	98.0	108.2	93.1	85.1	75.0	68.2	56.4
1941	103.1	121.0	100.7	84.7	121.0	44.0	176.2	146.0	134.0	169.3	100.2	156.3	158.3	114.9	74.9	87.3	76.2	57.4	88.8	116.5	110.4	133.8	100.3	88.5	100.0	76.2	73.7
1942	122.0	129.2	112.9	89.0	135.3	48.5	223.4	208.9	172.5	245.6	170.0	181.5	220.9	113.4	72.4	89.0	76.9	56.3	109.6	117.1	108.2	140.9	105.2	89.3	110.8	77.6	70.6
1943	140.3	162.5	167.4	81.6	153.3	43.7	279.2	241.5	194.0	266.9	209.9	200.0	263.3	141.5	76.6	93.3	69.6	50.8	116.7	126.9	108.6	161.0	115.3	93.1	146.4	83.7	69.3
1944	133.8	191.1	165.4	81.3	159.2	35.1	269.5	216.0	180.4	211.4	193.8	175.0	242.3	140.7	69.3	95.1	69.1	47.4	115.7	133.9	111.4	155.0	114.0	93.7	148.7	85.8	63.6
1936 January	66.5	98.0	74.9	78.5	84.6	31.7	76.8	63.3	56.3	69.9	32.2	81.1	74.2	64.1	76.1	60.7	73.4	41.6	74.5	103.8	87.7	85.6	85.9	85.2	66.0	70.8	65.8
February	66.0	100.5	66.8	77.5	83.2	32.1	76.8	63.9	58.1	70.2	33.7	80.3	73.7	68.5	84.9	60.2	67.7	41.3	68.6	112.8	86.8	90.8	85.0	86.8	64.5	63.5	65.7
March	67.2	103.4	76.0	73.1	84.1	32.0	77.4	65.1	61.2	71.5	35.5	79.1	74.6	69.2	91.3	61.5	67.1	45.0	65.4	114.4	87.8	91.4	78.1	89.3	65.3	67.0	62.5
April	69.5	105.3	87.8	66.0	83.9	29.4	81.3	66.4	64.1	72.3	37.3	79.2	74.3	67.1	88.7	71.0	65.8	58.1	66.9	119.0	90.0	94.3	80.3	91.9	68.6	68.4	58.8
May	69.7	103.0	89.1	62.6	83.9	27.6	82.2	67.9	66.2	74.2	37.9	81.0	75.7	66.6	83.0	72.2	66.5	50.1	71.7	121.3	89.0	95.9	80.9	89.7	70.4	59.2	57.4
June	70.0	97.5	85.6	63.8	84.4	28.0	81.8	69.1	66.1	74.4	39.8	80.8	78.9	69.8	81.1	73.5	64.2	51.8	75.6	123.7	87.2	99.1	79.4	87.7	72.8	59.1	56.0
July	70.1	88.2	79.9	73.3	87.8	27.8	81.4	68.0	65.9	74.8	39.1	77.9	77.2	70.6	90.5	72.7	63.6	48.2	81.3	117.6	83.6	96.4	81.6	85.2	71.1	65.8	60.2
August	72.5	85.4	64.4	79.8	90.2	29.6	84.2	72.2	71.1	76.8	41.3	83.6	81.9	82.5	98.0	75.0	65.4	52.6	83.2	114.6	86.5	98.1	85.5	89.4	74.0	75.0	61.8
September	73.5	83.7	59.6	74.5	93.1	31.2	84.7	73.3	71.5	79.4	44.8	89.2	82.3	94.1	100.1	77.1	68.7	54.8	79.6	116.8	89.5	104.8	88.5	94.5	73.7	74.2	62.5
October	77.2	86.1	79.5	73.6	93.4	34.5	89.8	76.5	70.0	80.2	46.3	95.6	86.3	95.0	102.3	81.7	69.9	55.4	81.2	122.0	90.2	107.5	87.8	98.5	72.6	75.4	62.2
November	79.7	90.1	98.5	78.3	94.3	35.2	91.1	78.6	71.3	81.4	46.5	99.7	89.9	90.5	103.8	77.6	71.7	53.8	92.5	118.2	91.9	111.2	94.1	102.3	74.4	72.5	66.5
December	82.5	95.7	103.8	82.3	95.0	37.9	94.5	82.6	73.1	85.3	48.3	104.8	97.0	88.5	103.0	80.3	72.7	52.4	98.0	118.5	93.2	109.2	102.4	101.8	76.6	74.9	75.0
1937 January	79.7	101.0	82.1	91.7	93.8	39.8	92.3	81.2	79.8	86.6	47.6	99.5	92.1	84.6	94.2	80.1	70.2	50.8	89.5	120.3	95.9	106.9	95.2	98.6	73.2	71.2	73.8
February	83.1	106.6	95.0	94.6	96.1	40.0	93.4	85.3	86.6	89.8	50.3	105.3	95.7	91.3	102.0	85.3	71.8	51.1	81.3	112.4	97.9	113.1	96.9	98.9	74.7	75.6	75.8
March	85.7	111.2	97.6	97.8	98.3	40.4	99.2	88.9	90.6	93.5	54.2	107.2	99.1	91.0	104.2	88.4	74.4	57.2	78.6	115.9	100.6	114.3	93.9	100.0	77.8	73.5	75.7
April	85.3	115.9	99.0	92.3	98.1	40.3	101.4	89.7	87.7	95.6	54.6	109.3	100.7	84.8	101.2	87.4	73.5	58.8	74.6	124.0	97.9	117.2	94.0	102.4	75.1	69.9	70.2
May	85.0	117.8	103.5	84.7	98.1	38.4	103.1	90.5	88.2	97.8	55.9	108.0	102.4	88.3	100.4	82.2	75.2	60.0	76.0	127.5	98.3	112.2	96.9	96.1	76.0	68.9	67.4
June	83.7	120.7	95.6	86.9	99.9	37.0	103.6	89.0	85.3	98.5	56.2	104.1	100.3	90.8	100.6	77.5	72.6	60.3	75.3	126.7	98.5	112.3	98.0	92.9	74.5	69.0	65.6
July	81.5	119.6	85.2	87.7	99.4	36.9	102.8	86.9	82.8	97.0	56.6	97.4	98.5	87.8	95.0	79.3	70.0	55.6	76.1	118.0	94.8	111.8	95.9	93.0	70.3	71.0	65.2
August	80.3	120.6	80.2	85.5	98.2	35.6	103.8	85.3	81.6	96.1	56.8	96.3	94.5	90.4	94.5	82.0	70.4	55.3	71.8	114.9	95.3	111.5	95.9	93.2	69.8	74.5	60.3
September	77.5	126.8	70.3	73.2	99.5	34.8	102.1	83.5	78.7	95.9	56.1	93.0	92.5	89.5	93.0	79.5	66.6	54.7	72.4	114.7	92.2	110.0	96.4	101.4	70.1	75.3	48.7
October	76.5	127.5	94.6	68.2	98.7	33.2	98.0	80.7	71.0	96.1	54.7	87.9	91.3	84.3	92.0	67.0	64.7	52.6	73.1	114.3	88.0	108.8	92.3	102.2	67.8	76.0	47.3
November	68.9	123.4	88.2	58.1	95.4	30.7	91.3	73.4	60.3	90.0	53.0	76.4	82.6	70.2	85.5	54.1	56.5	44.3	74.5	101.8	81.8	105.5	95.3	100.9	57.3	61.8	39.0
December	61.5	112.8	64.5	63.8	86.7	28.1	78.1	67.3	51.3	82.8	52.3	66.4	76.2	63.0	79.7	42.0	53.0	29.2	80.6	89.2	75.6	94.6	99.0	100.8	54.4	64.8	39.0
1938 January	55.3	96.7	46.4	68.1	78.8	24.3	69.3	58.1	38.5	74.4	43.3	60.2	67.2	54.8	74.0	38.2	50.8	29.2	82.7	88.1	74.9	88.1	91.8	95.4	46.6	55.0	39.8
February	55.5	88.5	44.6	72.2	77.3	25.3	64.0	55.5	38.2	69.7	41.6	58.5	63.9	60.8	77.3	40.2	52.6	31.1	72.3	92.7	78.6	94.8	89.3	95.5	40.8	59.5	44.1
March	54.9	91.6	43.9	68.1	75.1	25.2	60.8	54.4	38.3	67.1	40.8	57.7	62.9	58.3	79.0	42.5	50.9	37.8	69.3	93.2	78.6	97.2	81.4	92.9	42.7	60.6	36.7
April	52.9	87.8	45.2	64.2	73.2	25.7	56.5	52.3	38.9	62.4	37.4	56.7	61.6	53.7	73.4	39.7	46.6	39.5	70.2	94.1	75.4	96.1	78.8	89.9	43.2	57.8	30.9
May	51.3	83.4	39.9	54.9	73.5	25.0	53.7	50.6	38.6	59.1	35.2	55.9	60.5	51.8	65.1	37.0	46.0	41.3	68.0	95.5	75.5	95.6	81.9	84.4	45.2	58.8	35.8
June	51.0	75.1	38.3	59.9	73.3	24.0	51.8	47.8	36.3	54.6	32.6	54.5	57.8	54.3	65.8	37.8	49.3	43.1	70.3	92.1	74.0	94.6	79.6	82.3	45.4	57.3	40.2
July	51.6	61.6	33.0	71.8	73.5	25.1	50.7	47.4	36.7	52.5	31.4	55.0	58.2	56.6	68.3	35.8	48.0	42.0	72.6	88.7	77.1	96.6	83.0	80.7	46.8	60.0	49.5
August	54.9	61.7	31.1	78.4	77.8	27.6	51.7	48.6	39.0	54.2	30.5	59.4	58.8	64.7	76.7	43.8	50.6	48.0	70.4	90.5	78.0	99.0	85.2	83.6	50.1	67.7	54.4
September	57.1	53.5	44.7	73.5	83.5	30.7	54.8	50.2	39.2	55.2	29.6	63.6	62.4	70.5	80.7	45.1	53.1	48.6	72.3	94.6	82.1	97.0	79.4	87.6	54.3	68.3	48.4
October	60.1	54.1	63.1	70.1	85.2	32.0	58.9	52.8	42.4	55.9	30.4	69.1	66.2	70.2	82.8	47.6	54.7	47.8	72.3	97.0	84.5	100.8	81.9	88.5	59.1	63.4	51.4
November	62.1	63.4	74.7	64.8	84.0	32.3	60.0	55.3	44.7	57.5	31.5	74.2	69.1	66.2	80.2	54.1	58.6	44.5	77.4	95.2	82.3	101.2	85.2	89.2	62.6	59.2	57.3
December	62.7	69.2	74.0	75.2	81.7	32.4	63.6	56.3	45.1	58.7	32.8	74.2	70.3	69.8	79.5	50.6	60.2	41.7	78.6	94.0	82.6	101.0	86.7	90.9	65.4	67.1	60.9
1939 January	62.8	75.5	70.8	82.7	83.4	32.6	66.7	56.5	48.2	60.1	34.4	71.9	67.8	69.0	76.2	50.7	61.1	40.4	77.0	91.9	82.9	97.7	87.9	84.5	64.2	67.1	58.5
February	64.2	79.8	68.4	87.3	83.0	32.6	69.3	59.0	49.7	63.8	36.8	73.9	69.6	73.6	83.4	53.3	65.5	39.0	67.9	92.9	85.1	103.1	88.7	87.2	63.0	71.0	61.9
March	65.0	85.4	67.8	86.9	82.6	32.9	75.1	59.5	49.6	65.8	36.7	74.6	70.2	74.0	86.7	55.5	64.0	41.6	66.5	96.4	85.5	105.7	82.0	87.3	64.4	70.2	59.0
April	64.2	85.1	70.7	81.1	82.7	33.1	73.6	61.0	52.0	67.2	39.9	72.1	71.1	70.3	82.1	50.9	61.1	45.5	66.8	100.3	87.1	106.4	81.5	86.6	64.4	67.9	50.0
May	63.1	80.7	61.0	66.1	83.6	31.3	74.0	62.4	52.3	71.5	41.8	73.2	70.5	67.6	74.8	51.3	59.0	47.4	70.5	101.4	87.0	104.7	81.8	85.0	62.6	66.7	51.0
June	64.6	81.3	62.2	72.8	83.3	31.4	76.8	63.8	54.1	73.7	43.3	73.9	71.2	70.6	75.6	53.0	64.0	50.4	72.4	105.0	85.5	105.5	80.5	82.5	66.5	61.7	56.5
July	64.1	78.0	49.6	84.6	83.5	32.8	78.6	64.5	52.9	74.6	44.3	72.7	72.8	71.0	80.1	49.3	64.2	51.4	75.6	100.9	85.5	104.6	80.5	80.1	65.5	62.5	55.8
August	65.8	75.4	50.1	84.7	86.2	33.5	79.1	65.4	56.1	74.0	44.3	74.2	73.9	75.4	82.0	58.3	65.6	48.3	73.0	100.4	86.5	103.4	82.2	80.5	69.1	77.6	56.9
September	69.8	76.6	70.6	73.6	89.5	35.1	83.8	68.3	58.3	76.6	44.7	79.9	78.1	81.2	81.4	62.5	66.3	52.3	75.0	104.3	93.8	108.9	85.1	86.2	72.5	81.4	53.8
October	74.9	80.6	79.2	72.3	95.1	38.2	90.8	74.2	70.1	81.4	45.5	89.6	84.2	84.6	82.0	74.2	68.5	54.7	73.1	107.7	99.5	115.9	86.1	84.1	79.5	81.1	60.3
November	77.0	89.0	73.4	70.0	95.9	37.8	98.0	81.3	82.0	89.2	48.6	95.0	92.4	82.8	80.5	79.7	66.2	54.7	78.8	107.5	98.9	113.4	87.1	83.5	79.1	83.9	64.0
December	78.5	93.3	88.0	74.6	95.9	38.3	99.1	84.1	86.0	92.7	51.2	97.0	94.5	83.4	78.0	74.6	65.3	51.3	83.5	102.2	98.1	111.9	95.1	84.8	81.6	80.4	63.8

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[1] And machine shops

[2] And finishing

Period	25 Industries	Agricultural Impl't	Automobile	Boot and Shoe	Chemical	Cotton: North	Electrical Mfg.	Foundries[1]	1. Foundries	2. Machines, Machine Tools	3. Heavy Equipment	4. Hardware, Small Parts	5. Other Products	Furniture	Hosiery, Knit Goods	Iron and Steel	Leather Tanning[2]	Lumber, Millwork	Meat Packing	Paint and Varnish	Paper and Pulp	Paper Products	Printing: Book, Job	Printing: News, Magazine	Rubber	Silk and Rayon	Wool
1940 January	77.2	98.0	82.9	81.6	96.1	37.1	99.8	83.9	85.7	95.5	51.4	95.5	92.1	81.3	71.8	73.9	66.1	50.5	83.1	95.8	98.9	104.4	94.5	82.7	77.2	72.0	59.9
February	75.5	101.6	84.0	80.8	94.5	36.6	101.1	81.5	82.5	97.0	52.2	92.5	86.9	81.6	72.3	65.5	64.2	49.6	78.5	97.9	95.7	104.3	92.7	83.1	73.6	73.7	60.5
March	73.8	103.1	86.1	75.2	93.9	35.6	103.5	82.1	78.3	99.3	54.7	91.2	86.8	83.4	70.2	59.0	60.7	48.9	79.1	99.3	93.7	101.7	92.3	87.0	72.4	69.8	49.2
April	73.0	101.6	85.3	66.2	94.3	35.4	103.4	82.2	75.0	100.9	52.6	91.2	87.3	78.7	71.3	59.5	59.5	47.4	76.2	99.7	94.0	103.0	90.7	87.1	72.0	67.2	45.8
May	72.6	100.3	77.0	59.0	96.1	34.1	104.6	82.9	68.6	103.2	52.1	89.8	92.2	77.8	69.9	64.6	60.4	48.7	76.6	103.0	99.8	107.0	90.5	85.0	72.1	63.4	44.4
June	74.0	97.5	77.6	61.4	98.2	31.9	107.1	84.5	68.8	104.9	54.7	92.9	92.7	79.9	68.2	68.4	61.6	51.5	78.9	101.9	101.0	109.8	92.3	83.1	69.2	60.5	48.4
July	74.0	96.0	53.4	71.8	98.2	35.1	108.1	87.1	74.8	107.5	56.1	94.6	95.1	79.4	72.1	71.5	61.7	51.0	83.0	101.4	103.2	110.0	93.5	81.6	68.1	62.8	53.7
August	76.4	96.6	62.8	72.3	101.0	35.2	110.8	91.0	80.7	110.2	58.8	101.0	99.2	88.1	70.7	73.5	60.2	50.2	77.9	101.6	99.1	108.1	92.5	81.7	70.4	64.9	57.1
September	80.5	98.3	82.7	64.4	105.1	35.9	113.9	97.5	88.7	115.8	62.5	108.3	107.3	94.2	71.4	73.8	63.6	52.2	76.9	104.4	98.3	107.4	92.7	85.3	73.0	70.9	60.1
October	85.6	100.4	101.9	64.3	107.0	38.9	121.0	102.6	92.7	119.8	65.1	115.8	113.8	99.3	75.2	80.0	65.8	56.9	80.1	103.7	96.6	112.8	93.8	86.5	81.1	69.9	64.6
November	86.7	102.7	101.9	65.1	106.4	39.4	129.0	105.8	97.1	122.7	66.5	120.3	118.1	96.0	74.4	78.7	67.5	54.9	83.3	105.9	97.4	113.7	95.8	87.7	81.9	70.9	66.5
December	89.8	106.8	95.6	74.4	107.0	40.1	136.6	112.5	105.5	130.7	70.5	126.9	124.7	96.9	73.6	78.7	71.0	53.9	97.4	104.0	100.5	115.2	97.1	89.0	89.7	73.2	68.7
1941 January	91.5	113.8	100.9	79.7	105.7	39.8	142.0	116.8	107.4	135.6	76.7	128.6	127.8	103.3	73.6	83.7	71.4	57.4	86.1	101.6	100.0	113.8	93.1	86.3	90.6	72.1	67.7
February	94.3	102.8	108.8	85.2	109.1	41.1	153.1	110.6	111.6	143.6	73.8	137.4	129.4	106.2	74.7	85.0	71.5	55.9	78.1	105.1	103.2	120.1	95.7	87.2	93.0	80.2	71.5
March	96.6	88.3	110.4	85.7	112.4	43.7	161.9	125.3	117.4	151.5	77.4	143.8	134.6	109.7	76.5	84.3	72.7	55.2	78.5	109.4	104.3	123.0	97.6	90.8	93.9	81.3	72.0
April	98.5	134.4	97.9	81.0	116.0	44.2	168.2	132.9	125.1	156.1	88.7	148.4	140.4	110.5	75.8	87.6	73.2	56.0	79.3	113.5	106.2	125.9	97.7	89.4	97.7	81.4	70.0
May	101.9	132.0	110.0	78.5	119.5	44.8	177.1	139.8	129.9	161.6	94.3	154.9	150.0	111.9	74.1	89.8	73.2	56.7	84.8	119.9	109.7	129.7	98.4	85.4	100.0	80.4	73.1
June	105.4	132.5	116.3	84.6	122.5	45.7	181.9	146.6	135.7	168.4	101.9	159.3	157.0	115.6	74.8	87.3	76.3	58.4	88.5	126.1	112.2	133.7	99.0	83.8	106.3	78.0	75.1
July	104.7	129.9	91.6	89.1	125.3	45.5	187.2	149.0	140.0	172.0	104.7	161.5	156.8	119.1	74.7	87.6	76.7	55.3	92.5	125.9	113.0	136.8	100.0	86.1	104.9	78.5	75.2
August	106.0	124.6	81.5	89.6	126.4	44.2	188.4	156.4	140.9	173.9	109.4	164.0	175.3	121.0	76.7	87.1	77.8	59.6	91.8	122.3	114.5	139.4	101.3	86.6	103.5	79.1	75.6
September	109.0	125.3	93.1	83.1	128.4	41.0	188.7	163.5	148.9	187.1	115.6	168.8	179.2	121.8	74.8	88.0	80.2	61.6	92.9	118.7	114.6	146.6	104.2	91.0	100.9	74.7	76.2
October	110.4	125.0	105.6	84.9	128.6	43.6	190.3	165.0	148.4	189.8	116.7	169.8	181.6	121.4	74.1	92.2	79.9	59.0	94.0	119.2	115.5	147.7	105.9	91.1	101.8	67.5	75.0
November	110.4	123.7	105.7	84.7	129.4	47.1	187.9	167.0	148.5	193.2	118.8	169.6	183.8	118.7	73.6	86.5	79.7	57.2	95.9	119.0	116.1	145.8	107.5	91.4	104.1	70.4	74.6
December	110.5	118.4	88.1	89.6	129.9	47.8	191.3	173.0	154.7	201.6	126.7	171.6	186.7	119.2	75.3	87.8	80.8	56.2	103.8	119.8	115.6	144.9	105.9	94.0	102.8	70.0	77.2
1942 January	113.4	123.9	98.6	93.8	130.7	48.1	197.7	181.0	156.6	210.9	138.8	176.1	189.7	114.1	70.9	90.6	78.4	56.1	106.4	119.0	115.1	142.6	104.4	90.6	100.7	71.5	74.3
February	114.0	125.7	89.5	96.9	131.4	48.4	202.7	185.4	160.2	220.2	143.7	176.2	193.1	119.5	72.6	90.2	78.7	55.0	103.3	122.6	115.2	145.3	104.4	90.5	103.1	78.8	69.2
March	115.9	128.4	91.6	97.8	132.1	49.3	206.8	189.5	164.9	227.3	149.5	177.4	195.1	120.0	72.9	88.2	80.0	55.4	98.9	122.8	114.2	147.6	105.3	91.2	105.3	80.8	67.6
April	117.8	127.4	94.2	92.6	132.5	49.2	209.5	199.2	168.5	239.9	157.9	180.0	208.2	120.2	69.8	92.0	78.8	54.4	99.8	119.5	112.4	146.8	103.5	88.0	104.1	83.4	68.6
May	118.0	129.2	103.2	90.0	138.2	48.4	213.3	201.3	169.0	245.3	164.8	179.9	205.2	113.0	69.4	87.4	78.1	55.1	104.0	116.5	110.6	144.0	101.5	86.1	95.9	77.7	68.9
June	119.8	129.5	108.0	86.4	133.6	47.9	215.2	206.1	165.8	248.1	171.8	179.4	213.3	104.6	67.9	90.0	76.5	58.2	111.5	114.1	107.4	137.7	101.0	85.9	101.1	71.7	70.1
July	120.9	130.1	113.4	84.3	132.9	48.0	219.6	209.3	167.4	247.9	177.4	175.1	218.9	105.5	69.6	88.7	73.2	57.7	116.3	112.6	101.5	130.7	96.7	86.3	107.6	73.9	70.6
August	124.6	128.2	125.5	86.2	136.1	47.2	227.9	216.1	175.5	250.3	182.2	182.7	227.7	109.3	72.2	85.5	73.8	59.5	114.4	111.5	102.0	134.5	107.5	86.9	112.1	77.6	70.1
September	126.7	129.7	126.0	83.1	136.8	48.6	237.4	220.1	181.1	252.2	186.9	180.3	234.6	109.4	71.6	89.5	74.7	60.9	115.0	110.7	101.4	131.0	104.0	88.4	115.6	73.4	71.4
October	129.5	132.2	133.9	84.4	139.2	48.8	245.8	228.3	184.2	263.6	184.1	183.0	254.3	113.4	75.7	88.9	75.1	56.0	108.6	115.9	104.6	134.1	105.1	91.8	123.9	77.2	70.4
November	130.4	130.0	136.5	84.3	139.3	48.5	252.4	228.9	186.0	265.5	186.6	191.6	249.2	111.4	76.8	87.1	76.4	53.4	112.0	119.5	106.2	141.1	111.2	94.2	129.2	80.4	71.6
December	134.7	134.4	134.0	90.3	141.9	49.1	256.7	238.8	192.4	273.8	196.6	195.6	261.1	119.1	79.3	89.1	78.4	52.7	125.2	120.2	107.6	151.5	120.2	93.1	135.7	86.2	73.4
1943 January	136.0	136.7	150.5	92.1	145.3	47.8	263.7	236.7	189.5	275.0	195.4	193.8	261.3	124.7	79.2	88.5	75.0	51.3	128.5	115.7	105.8	152.4	119.8	92.8	142.2	79.7	73.1
February	138.3	146.3	154.0	89.5	146.7	48.1	268.2	240.2	188.7	270.2	207.5	197.0	262.2	132.9	79.2	92.1	75.4	49.0	120.6	119.5	106.4	158.5	121.8	93.5	141.8	86.1	73.3
March	139.3	149.9	155.1	88.0	147.9	47.4	277.6	243.1	193.6	277.0	211.1	199.0	262.1	132.7	79.6	94.4	74.4	48.9	113.1	121.5	107.5	160.0	121.3	92.0	142.1	86.2	73.4
April	139.4	154.3	158.7	87.6	148.6	46.0	277.0	241.8	196.1	274.8	209.3	202.1	260.1	140.1	77.1	93.7	74.3	50.2	106.3	125.4	108.4	158.7	120.0	90.1	141.7	81.1	72.1
May	140.5	157.4	165.3	83.8	150.5	44.9	279.6	243.2	196.8	275.9	209.1	202.5	262.5	140.6	76.8	92.0	71.2	50.4	111.0	128.4	109.2	160.6	119.8	90.5	142.2	80.8	71.1
June	140.7	156.3	162.8	79.6	153.3	44.3	279.5	245.3	197.6	279.8	213.5	204.8	262.8	140.7	76.6	94.6	70.0	51.2	115.3	131.1	111.1	162.0	109.7	89.0	143.2	81.5	69.8
July	140.5	165.5	168.9	78.7	154.2	42.9	278.9	243.1	194.0	273.4	212.3	198.8	263.4	141.0	75.4	94.2	67.1	50.8	114.9	130.7	108.6	163.0	114.5	93.1	142.9	82.2	67.7
August	140.9	169.0	173.5	78.6	156.7	41.9	283.3	240.7	193.1	263.6	212.5	200.3	260.3	142.6	75.9	93.2	66.7	53.8	116.1	131.2	107.8	164.8	112.6	93.0	147.3	82.8	65.5
September	141.6	176.2	177.7	75.4	159.0	40.9	288.9	242.8	193.3	261.3	211.2	202.1	267.9	140.2	74.6	97.1	65.3	51.0	110.2	128.3	109.2	162.1	109.6	96.4	148.9	84.5	66.6
October	142.6	178.0	192.1	75.0	159.2	40.6	289.2	242.8	195.1	257.5	212.8	203.3	266.7	153.5	74.1	94.9	64.3	50.3	108.4	131.4	109.4	162.4	110.2	93.9	151.6	85.3	67.2
November	142.6	180.4	182.1	75.4	159.8	40.1	287.5	241.1	194.5	251.2	211.8	203.1	264.9	155.7	75.7	94.6	65.2	50.4	120.8	131.5	109.3	164.5	112.9	96.2	156.5	86.8	66.6
December	141.2	181.0	167.7	76.0	159.2	39.9	278.9	237.9	194.4	241.4	211.6	195.8	264.2	155.7	74.8	90.3	66.6	51.6	129.1	129.0	110.1	163.1	112.2	96.0	156.3	88.6	66.1
1944 January	140.1	185.2	184.8	77.3	159.8	38.0	278.4	233.0	192.1	237.4	202.0	189.4	264.4	149.2	72.3	95.3	66.4	49.2	130.3	130.4	110.0	158.1	117.4	94.1	157.4	86.2	64.2
February	141.5	192.3	180.0	79.9	160.5	38.0	278.9	236.1	192.1	229.8	212.0	194.6	264.9	155.6	73.7	98.0	67.4	48.9	125.0	132.5	110.7	158.6	116.9	93.8	157.5	90.2	66.7
March	140.6	195.7	175.9	80.4	160.2	37.3	277.6	233.4	188.7	226.3	210.4	190.3	263.4	158.8	73.0	98.4	68.4	49.0	116.3	134.8	111.0	157.1	117.0	93.9	155.4	89.8	65.7
April	136.3	197.0	179.4	80.1	157.3	35.4	272.1	223.0	179.2	217.8	203.7	176.6	250.3	151.1	69.6	93.9	67.7	49.1	114.2	133.8	110.0	155.7	113.1	94.0	151.2	84.6	62.1
May	134.1	193.2	163.6	79.5	156.6	34.7	272.1	219.6	179.1	215.0	197.3	176.0	248.3	144.4	69.2	96.4	68.9	43.6	114.8	137.4	110.6	151.2	112.1	92.4	147.6	86.6	63.7
June	134.0	195.4	167.0	81.4	157.0	35.4	271.7	215.8	176.2	211.4	195.2	172.7	242.9	136.8	68.6	96.1	69.9	48.5	116.1	136.8	112.9	154.6	112.9	91.6	147.9	84.9	64.3
July	131.3	195.7	162.6	83.0	156.8	34.2	266.5	210.3	174.8	205.0	190.2	163.2	238.1	132.6	67.7	92.5	69.2	47.5	116.4	134.6	110.8	154.5	114.7	93.4	141.3	82.9	62.6
August	131.3	189.0	163.7	82.7	158.1	32.7	265.3	207.7	178.8	199.4	188.7	167.3	231.6	137.0	68.4	96.3	70.9	47.5	111.2	133.8	111.6	152.7	113.1	93.8	144.5	84.7	62.0
September	130.2	188.5	159.6	83.9	159.2	32.8	267.0	205.3	178.0	201.2	183.7	165.9	229.1	131.1	67.4	95.1	69.7	48.2	106.0	132.4	112.8	152.8	112.6	94.6	143.1	83.6	62.6
October	128.8	185.7	155.1	82.5	161.8	34.5	264.2	203.7	175.2	199.7	182.1	168.4	225.9	127.9	67.3	93.1	69.6	45.4	105.9	134.1	111.7	152.9	112.2	94.3	143.1	86.3	62.7
November	127.7	184.2	148.7	82.2	164.9	33.1	259.3	200.2	173.9	194.7	178.1	166.0	223.1	129.8	67.3	96.0	69.3	45.8	110.7	133.1	110.9	155.3	112.6	93.5	145.1	83.9	62.1
December	128.2	188.5	146.1	82.5	157.9	34.8	259.3	202.7	174.8	196.9	181.3	167.8	225.9	133.1	67.1	90.6	70.7	46.0	120.7	133.4	114.2	155.1	114.1	95.1	149.2	85.6	63.8

REVISED INDEXES OF PAYROLLS, 25 MANUFACTURING INDUSTRIES, 1936–1944

1923 = 100

Source: The Conference Board

Period	25 Industries	Agricultural Impl't	Automobile	Boot and Shoe	Chemical	Cotton: North	Electrical Mfg.	Foundries[1]	1. Foundries	2. Machines, Machine Tools	3. Heavy Equipment	4. Hardware, Small Parts	5. Other Products	Furniture	Hosiery, Knit Goods	Iron and Steel	Leather Tanning[2]	Lumber, Millwork	Meat Packing	Paint and Varnish	Paper and Pulp	Paper Products	Printing: Book, Job	Printing: News, Magazine	Rubber	Silk and Rayon	Wool
1936	82.3	114.9	100.5	84.1	108.6	31.9	98.5	75.4	68.6	89.4	38.9	93.4	86.7	81.7	122.8	81.2	78.8	62.7	93.1	134.7	95.9	113.4	95.0	115.8	85.5	70.3	66.2
1937	101.0	163.6	126.9	89.9	138.1	41.8	129.6	101.7	92.9	121.5	58.5	118.8	117.7	100.8	138.3	103.3	86.8	72.8	109.1	148.0	114.3	136.3	110.0	129.1	94.7	73.8	71.9
1938	73.4	106.1	72.5	74.6	115.2	30.8	81.9	66.8	49.5	80.5	39.9	79.2	82.3	76.7	112.7	59.7	67.5	60.1	107.1	123.3	100.6	127.5	101.3	120.9	67.2	64.9	54.5
1939	90.1	118.3	102.0	81.6	130.3	37.7	112.5	85.8	74.8	101.3	49.6	103.3	100.1	96.1	115.0	83.7	84.9	69.1	107.7	135.9	114.0	142.5	107.0	117.4	95.6	75.8	67.9
1940	107.1	147.4	126.5	75.5	155.2	41.6	159.9	121.0	107.1	154.0	69.5	139.0	134.0	113.6	105.1	100.9	85.9	75.2	118.2	139.3	130.1	148.5	118.0	119.9	105.0	73.0	69.5
1941	155.6	196.7	173.0	100.8	203.2	55.9	281.3	217.1	189.3	264.1	135.2	242.2	238.2	168.2	113.3	140.8	110.7	96.8	140.2	172.5	159.1	195.0	130.3	126.0	148.1	85.1	100.4
1942	210.0	233.2	223.0	120.3	260.4	73.3	398.9	364.5	282.5	452.2	269.0	326.3	388.7	186.5	126.6	155.5	126.9	110.5	189.1	191.1	175.6	231.3	142.8	131.4	179.3	100.3	111.2
1943	264.3	318.0	343.3	115.3	318.6	73.6	525.8	468.3	350.8	525.3	374.6	410.2	513.0	261.1	154.2	178.5	123.0	113.9	216.8	219.5	189.2	284.0	169.7	146.2	263.4	123.3	120.8
1944	264.8	390.6	343.2	121.4	340.8	61.4	537.8	448.6	347.9	442.1	375.5	376.9	504.3	272.8	148.6	189.8	128.7	109.6	226.7	241.1	199.2	287.6	184.3	155.1	287.0	134.8	114.9
1936 January	74.8	119.0	91.3	89.7	101.7	32.1	90.2	66.6	57.8	82.2	31.0	86.2	78.4	67.0	102.0	66.9	85.0	51.0	88.0	119.8	93.5	99.9	94.6	107.7	78.1	74.6	68.6
February	74.0	120.7	81.9	88.6	100.6	32.3	89.6	67.6	59.5	82.6	32.5	85.9	78.2	71.4	113.3	66.1	77.8	50.5	80.6	128.7	92.3	105.5	93.3	109.2	75.1	67.2	68.3
March	76.1	124.4	93.7	83.6	101.5	32.3	91.0	69.2	63.2	83.8	34.4	84.7	79.9	73.1	122.2	68.0	78.1	55.2	78.1	129.7	93.4	106.1	86.9	113.0	76.3	71.3	65.2
April	79.1	126.4	109.0	75.9	101.5	29.7	95.9	70.5	65.9	84.4	36.1	84.9	80.2	70.8	118.3	79.0	77.0	60.9	79.9	134.9	96.2	109.9	89.1	115.2	80.9	72.0	60.9
May	79.8	124.0	110.9	71.6	103.4	28.0	97.1	72.4	68.1	86.3	37.0	87.2	82.1	70.6	111.2	80.2	77.5	64.5	84.9	137.8	95.1	109.8	89.2	113.3	86.4	62.1	60.0
June	80.3	116.1	107.1	72.5	103.6	28.3	96.1	73.7	68.0	87.0	38.5	87.1	86.0	73.9	106.7	83.0	74.5	66.3	89.2	140.7	94.3	113.4	88.6	111.5	89.9	58.8	58.5
July	80.0	106.1	100.5	83.4	107.5	28.2	95.8	72.4	67.6	87.7	37.3	83.8	83.4	74.5	121.5	82.5	72.4	61.9	96.0	134.6	90.6	109.9	91.0	106.9	86.9	65.3	63.2
August	82.6	103.4	81.3	90.8	110.6	29.9	98.8	76.9	73.4	90.7	39.8	90.4	87.9	88.1	130.1	84.5	75.6	67.6	98.2	132.0	94.1	112.5	94.5	111.7	90.8	75.4	65.2
September	84.1	101.3	74.6	85.5	114.2	31.6	99.2	79.0	74.5	93.7	43.7	98.4	89.8	101.2	133.3	86.2	79.2	70.4	94.5	135.1	97.8	120.6	98.7	118.4	90.4	75.0	65.6
October	88.4	104.7	98.9	84.6	115.7	35.1	106.1	82.4	73.1	94.7	45.3	106.1	93.4	102.1	137.4	91.2	80.9	71.0	96.5	141.8	98.5	122.7	99.4	125.2	87.7	75.3	65.4
November	92.3	110.1	126.0	90.5	118.3	35.7	109.1	84.7	75.1	96.6	45.1	110.9	97.2	96.6	139.4	91.1	82.7	69.0	115.2	139.6	100.9	125.6	105.1	128.4	90.7	72.0	70.6
December	97.2	123.1	136.2	94.0	124.9	40.6	114.8	90.8	79.0	104.2	47.5	119.5	106.3	95.9	139.9	98.6	84.9	66.3	121.2	141.2	104.8	125.8	111.7	129.2	94.1	75.9	83.3
1937 January	93.7	131.5	106.3	98.6	124.5	43.9	112.6	90.8	85.2	106.7	48.1	113.8	104.9	94.5	131.6	97.2	83.9	63.4	111.4	144.6	109.3	124.5	106.8	122.4	94.3	72.0	83.1
February	98.7	138.6	126.6	101.6	128.6	43.5	114.2	96.5	92.9	110.8	51.5	122.4	110.7	102.8	140.9	103.9	86.9	63.2	102.4	135.9	111.7	132.8	108.7	123.1	96.5	76.9	85.6
March	104.9	146.0	137.7	105.3	134.1	44.1	124.6	102.3	100.0	116.1	55.6	124.7	118.5	104.2	144.0	117.4	90.9	75.0	99.4	140.1	115.5	134.5	105.8	127.2	103.9	75.7	85.2
April	108.9	162.8	142.6	100.3	138.6	46.1	133.7	108.7	104.6	124.0	58.1	135.7	126.1	99.8	144.0	125.3	92.1	81.1	109.7	157.4	115.1	141.1	107.1	129.9	102.0	72.4	84.0
May	109.9	167.2	151.1	93.8	140.2	44.6	137.8	110.7	106.0	128.1	60.5	135.0	128.6	105.2	144.1	119.2	95.8	85.3	111.4	163.1	118.8	137.6	110.7	125.8	104.4	70.8	81.5
June	109.1	171.5	140.8	96.0	143.0	43.1	140.4	110.2	103.7	129.0	60.7	131.9	129.4	109.6	146.3	113.7	93.3	86.4	110.9	165.6	123.2	141.8	113.5	124.1	102.4	70.8	79.8
July	106.6	170.5	128.9	96.5	144.7	43.2	140.1	108.4	101.3	127.9	61.5	124.4	127.7	106.0	139.4	115.4	91.3	79.7	111.8	156.9	120.4	141.7	110.2	125.2	97.3	72.4	79.9
August	105.9	173.3	121.0	94.8	143.7	41.7	142.3	107.2	100.4	128.0	62.5	124.3	123.0	109.7	141.6	118.1	92.6	81.0	106.6	152.1	122.8	142.1	109.2	125.4	95.1	75.8	75.0
September	102.5	182.2	104.9	81.3	146.5	41.4	140.2	105.6	97.6	127.5	62.4	120.8	120.8	110.9	139.7	112.1	88.0	81.0	106.4	153.3	118.9	140.4	111.6	135.9	96.3	78.8	61.3
October	101.5	183.2	141.9	76.0	145.2	39.9	135.4	102.4	87.5	128.8	61.9	113.9	118.7	105.0	140.1	93.1	84.6	77.5	108.3	152.6	113.4	138.9	108.4	137.8	93.3	81.5	58.9
November	91.3	176.9	131.3	66.5	140.5	36.7	127.1	93.3	75.3	121.1	59.8	98.9	107.1	86.7	129.1	74.3	73.4	64.3	110.3	136.0	105.3	136.5	112.2	136.3	78.0	67.8	48.4
December	80.9	163.3	95.5	71.9	128.4	33.8	110.1	86.2	64.4	111.0	60.2	85.7	99.5	78.4	119.3	57.9	70.3	41.3	117.9	120.3	98.1	124.1	115.7	136.6	74.1	71.1	48.5
1938 January	72.6	140.8	68.9	78.8	117.3	29.5	98.0	73.9	48.8	99.4	48.9	78.0	87.5	68.9	112.0	51.8	68.2	40.7	119.8	117.2	96.6	118.1	108.3	127.8	63.4	60.5	49.2
February	72.4	128.3	66.3	81.9	114.4	29.4	90.5	71.0	47.9	93.0	47.4	76.7	83.8	77.1	119.5	55.0	70.3	43.0	106.5	123.4	101.5	124.7	104.9	128.9	53.7	64.3	55.8
March	72.5	132.5	65.7	77.5	111.0	29.0	86.5	69.8	47.5	89.5	46.8	76.1	83.0	73.7	121.8	58.6	67.3	55.4	102.4	123.0	101.0	128.8	98.3	126.4	56.9	65.3	46.3
April	70.0	126.9	67.6	70.1	108.5	29.7	80.3	66.5	48.7	83.5	43.9	73.2	80.4	67.8	111.5	55.3	62.0	58.6	102.7	123.4	96.6	126.2	94.5	122.5	58.1	62.5	39.0
May	67.7	121.1	60.2	59.2	109.4	27.9	76.7	64.3	48.4	79.1	39.8	71.4	79.0	66.6	97.6	52.2	60.6	61.3	100.0	126.2	97.5	126.3	99.0	117.3	60.7	63.6	43.5
June	67.4	108.5	58.0	65.6	109.1	26.6	73.6	61.1	45.1	73.0	37.9	69.5	76.0	68.8	99.4	53.8	64.0	62.8	103.4	121.9	95.7	124.6	97.0	115.1	61.0	60.8	48.0
July	67.6	87.8	49.9	75.3	109.1	27.7	71.4	60.2	45.8	70.3	36.4	70.3	75.5	72.0	105.2	51.2	61.0	60.2	107.0	117.5	98.6	126.7	100.6	111.4	62.9	63.2	57.3
August	72.0	87.3	47.9	82.3	114.5	30.5	72.8	61.6	48.8	72.6	35.4	75.9	76.1	82.1	114.8	61.3	64.0	70.2	104.4	119.7	99.9	129.1	102.5	113.7	66.9	71.3	63.2
September	75.2	75.6	68.1	79.7	122.6	33.6	77.0	63.6	48.7	74.4	34.4	81.8	80.9	89.2	119.7	63.2	67.9	72.5	107.2	126.0	104.3	127.1	97.2	119.2	72.4	71.4	57.2
October	79.1	77.1	95.4	76.5	124.6	34.7	83.0	66.8	52.9	75.4	35.4	88.3	85.3	87.6	122.7	66.8	70.1	71.5	105.3	129.5	107.2	132.2	101.1	121.5	79.3	65.9	61.2
November	82.0	91.6	112.9	69.9	123.5	35.2	84.2	70.1	55.8	77.8	36.6	95.0	89.6	81.7	116.4	76.2	76.0	66.8	112.2	126.8	104.7	133.1	104.7	122.2	84.9	61.9	67.1
December	82.5	99.9	111.0	79.5	120.5	35.6	89.8	71.6	56.5	78.8	38.8	94.9	91.2	87.0	113.7	71.1	78.5	62.1	114.0	125.1	104.7	132.7	106.9	124.8	89.7	69.1	70.8
1939 January	82.3	109.3	105.8	87.5	123.0	35.8	94.4	71.9	60.7	80.9	40.3	93.1	87.5	86.2	108.9	70.5	80.0	59.5	112.9	123.2	105.2	130.3	109.2	115.9	88.0	69.6	68.6
February	84.1	116.6	102.5	91.8	122.0	36.1	98.1	75.5	62.8	86.4	43.1	95.6	90.8	93.4	118.3	74.3	85.1	56.6	99.7	124.4	107.5	137.4	110.2	119.0	85.7	73.5	73.1
March	85.4	124.9	101.9	90.3	122.1	36.6	106.7	76.3	62.8	89.4	43.0	96.9	91.6	94.6	123.2	77.5	82.9	61.6	98.4	129.1	108.2	140.7	103.6	120.1	88.0	72.4	69.2
April	85.1	123.4	106.3	84.7	122.6	36.7	103.5	78.5	66.1	91.4	46.9	93.2	92.7	89.5	117.6	71.3	79.4	68.2	98.6	133.8	110.0	141.2	102.0	120.6	87.9	71.6	59.2
May	83.7	116.0	92.2	69.9	124.3	34.5	104.1	80.3	66.4	97.7	48.6	93.9	92.6	86.8	106.8	72.2	76.3	71.3	103.8	135.8	110.6	139.5	103.4	118.7	85.2	71.0	60.0
June	86.4	117.3	94.1	75.0	124.5	34.6	108.0	82.7	68.9	100.8	50.2	95.5	94.8	91.0	106.6	75.7	84.1	75.8	107.1	140.8	108.6	140.8	103.0	115.2	90.6	66.9	65.6
July	85.1	113.1	74.9	86.5	125.9	35.8	110.5	83.1	67.1	102.4	51.4	93.8	95.3	91.4	114.9	71.4	84.7	73.9	110.8	136.1	108.7	140.3	103.4	112.3	90.7	65.3	64.9
August	87.7	109.3	76.9	87.5	129.2	36.5	110.5	84.2	71.0	100.8	51.4	96.2	97.6	96.5	117.2	83.3	86.8	68.1	107.5	135.1	110.0	137.8	102.2	111.6	96.7	79.9	67.2
September	93.2	110.5	107.3	77.4	134.2	38.5	116.9	88.1	73.7	105.1	52.2	104.4	102.2	104.2	116.2	89.1	88.8	74.3	109.9	141.6	119.7	145.5	108.6	120.1	100.0	83.8	64.3
October	100.2	116.6	118.3	75.7	143.7	41.8	126.1	96.6	89.3	112.1	52.8	121.5	111.8	108.7	119.2	105.8	92.9	78.5	107.7	146.5	127.4	154.7	108.5	118.5	111.4	83.9	71.1
November	103.8	128.0	109.6	74.5	147.0	42.1	135.8	106.6	105.1	124.8	56.7	128.7	123.8	104.8	117.5	113.7	89.4	79.5	114.8	145.9	126.4	152.4	110.9	117.1	113.5	88.3	76.8
December	105.7	135.0	134.0	79.0	147.3	43.5	138.7	110.3	110.2	129.9	60.2	132.5	124.4	107.0	113.2	106.9	88.5	73.8	121.5	139.3	126.3	150.2	119.4	119.7	114.5	83.9	76.0

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[1] And machine shops

[2] And finishing

Period	25 Industries	Agricultural Impl't	Automobile	Boot and Shoe	Chemical	Cotton: North	Electrical Mfg.	Foundries[1]	1. Foundries	2. Machines, Machine Tools	3. Heavy Equipment	4. Hardware, Small Parts	5. Other Products	Furniture	Hosiery, Knit Goods	Iron and Steel	Leather Tanning[2]	Lumber, Millwork	Meat Packing	Paint and Varnish	Paper and Pulp	Paper Products	Printing: Book, Job	Printing: News, Magazine	Rubber	Silk and Rayon	Wool
1940 January	103.6	142.4	124.9	85.7	147.6	42.3	139.9	110.1	110.3	133.8	60.7	130.2	121.6	105.5	104.0	104.0	89.2	72.2	120.2	131.8	127.7	142.1	117.3	115.4	108.6	76.6	72.0
February	101.5	148.1	127.4	85.0	145.4	41.8	142.7	107.3	105.8	136.0	61.3	124.7	115.9	106.2	104.6	92.2	86.1	70.5	114.4	134.6	125.0	142.0	116.6	115.2	103.0	78.0	74.0
March	100.1	150.3	131.4	79.6	144.9	40.8	147.3	108.1	100.5	139.8	64.8	122.4	115.2	109.0	101.2	83.1	80.4	70.3	115.2	135.9	122.4	139.3	117.2	122.2	100.9	75.2	60.9
April	99.2	149.2	130.2	70.3	146.2	40.6	147.9	108.5	96.3	141.6	62.6	122.7	116.9	102.8	104.5	84.0	80.1	69.5	111.8	135.9	123.3	140.8	114.3	122.6	100.6	72.6	57.0
May	99.1	147.9	117.6	64.5	148.6	39.4	150.1	109.3	88.2	144.9	62.4	120.9	123.1	102.6	101.2	92.5	81.7	71.2	112.0	139.8	131.0	146.5	114.4	120.1	100.6	68.8	55.5
June	101.6	144.0	119.5	66.8	152.2	36.6	154.6	112.2	88.4	147.5	66.1	126.5	124.7	105.0	99.4	99.1	83.9	76.0	115.6	139.1	133.1	149.7	116.8	117.6	96.0	65.1	59.8
July	101.1	141.2	82.7	79.4	152.8	40.1	156.3	115.9	95.8	152.1	67.7	129.3	128.2	104.1	106.3	103.0	83.2	74.9	121.2	138.5	137.0	152.0	117.8	115.7	95.3	67.9	65.4
August	104.8	142.7	98.0	80.5	156.9	40.2	159.2	121.3	104.2	156.0	69.6	138.7	134.9	115.6	105.0	105.3	81.7	72.2	114.3	138.8	132.2	149.6	116.9	116.2	98.8	69.4	70.1
September	110.5	145.2	127.9	71.6	163.2	41.7	164.4	130.3	115.2	164.3	74.8	149.1	145.6	125.6	106.2	106.2	86.6	74.8	113.4	144.1	132.3	148.6	118.1	120.2	102.5	75.8	74.5
October	118.4	148.2	156.9	70.6	166.2	45.0	174.8	137.8	120.7	171.7	78.5	160.4	154.7	132.5	110.4	115.3	89.0	84.3	118.0	142.9	129.8	154.8	119.4	122.0	114.2	73.8	80.3
November	120.3	151.8	157.9	71.9	169.0	45.6	187.3	142.8	126.4	175.0	81.2	169.1	161.2	127.5	110.9	114.5	91.5	81.1	124.1	145.9	131.5	156.5	122.9	124.6	115.1	74.8	83.0
December	125.4	158.5	148.4	81.1	171.5	46.5	200.2	153.8	138.0	189.0	87.7	180.9	171.8	129.9	108.3	114.9	97.4	86.3	139.6	144.5	136.8	159.8	124.3	126.0	125.7	78.0	85.8
1941 January	128.8	171.8	158.4	87.7	168.3	46.1	209.7	161.1	140.1	198.2	96.2	184.6	177.7	138.6	110.2	122.3	97.4	91.4	124.5	142.0	136.0	159.1	118.3	120.2	126.9	76.7	84.8
February	133.6	155.9	171.8	95.6	173.5	48.4	226.2	154.2	147.8	211.4	93.4	198.9	182.7	147.1	110.0	124.4	99.0	89.0	114.0	146.7	140.8	167.8	121.6	123.3	132.4	85.8	90.8
March	137.9	134.4	175.8	96.9	177.4	51.9	241.6	175.9	156.1	224.2	97.7	210.6	192.4	151.3	114.2	124.8	100.3	89.2	115.1	154.0	142.3	170.8	126.0	129.0	134.8	86.6	91.8
April	142.7	222.3	157.8	92.8	187.3	54.5	252.2	188.4	171.1	233.3	112.2	218.0	203.1	151.9	113.5	143.6	101.3	91.1	117.2	162.3	145.1	175.4	126.0	127.3	140.5	87.3	90.2
May	151.3	216.2	187.8	93.0	196.4	55.1	286.2	202.0	181.3	244.8	122.5	233.9	220.0	161.3	111.1	148.6	102.0	93.0	132.3	175.3	152.4	181.3	127.0	122.4	145.3	86.4	95.7
June	160.0	215.2	203.9	100.6	203.1	56.8	294.5	218.3	191.6	260.5	139.7	249.9	234.3	171.5	110.6	146.0	111.4	98.3	140.5	187.1	163.4	194.4	127.2	120.7	156.2	83.7	102.8
July	159.1	213.3	160.6	105.3	208.5	57.1	307.4	223.6	199.7	269.6	144.1	254.1	235.8	177.7	111.7	146.6	113.1	93.2	146.0	186.4	168.1	204.0	129.2	122.0	155.6	86.9	102.0
August	162.2	208.1	142.0	107.3	214.2	55.9	312.7	236.2	202.9	275.0	150.9	261.2	265.0	184.1	114.2	144.5	116.0	102.8	146.7	181.2	170.5	207.0	130.6	122.5	159.1	88.2	105.1
September	169.9	210.9	165.8	102.7	223.1	54.8	311.5	251.6	218.0	302.7	162.4	271.8	276.9	187.0	112.9	145.6	119.9	108.6	157.5	178.4	170.8	217.0	136.8	128.8	153.6	87.2	109.9
October	174.5	210.5	191.4	106.2	227.7	60.0	314.3	257.9	219.8	309.6	164.7	274.4	289.8	187.1	116.3	152.8	121.8	104.2	159.4	185.7	172.2	223.6	139.9	129.6	154.9	79.4	108.9
November	175.9	208.4	196.1	106.9	231.3	65.1	311.6	263.8	222.3	320.5	169.5	276.6	295.3	181.1	115.1	144.1	122.9	100.8	162.4	186.2	175.2	222.9	142.8	129.7	161.1	84.4	110.1
December	177.1	201.5	165.4	114.6	234.5	65.9	322.4	278.7	235.1	337.7	185.6	283.7	307.8	184.0	119.6	148.0	126.1	99.5	173.8	188.6	175.7	223.7	138.5	137.2	159.1	85.7	114.7
1942 January	185.3	212.8	195.4	119.5	240.3	66.7	341.1	298.1	242.3	366.0	207.4	297.9	318.4	179.7	114.7	151.5	123.8	99.3	180.5	188.0	178 0	223.7	137.5	127.5	156.1	88.5	110.6
February	186.5	216.5	176.3	125.4	242.6	67.9	349.5	305.0	250.7	383.4	213.4	300.1	320.5	194.5	118.0	151.3	124.6	98.5	174.1	195.2	178 3	228.8	137.9	128.0	160.6	98.8	102.7
March	191.3	222.5	180.4	127.0	246.7	69.4	358.4	315.9	260.8	400.0	222.3	307.8	330.4	195.7	119.5	149.0	126.7	100.4	167.5	197.8	178.3	234.1	139.5	130.6	166.2	102.2	101.1
April	196.9	222.0	185.1	124.2	248.5	71.1	365.0	337.3	270.9	430.2	237.7	318.0	357.6	197.4	116.9	155.8	126.6	99.3	171.1	191.2	174.5	233.7	136.4	126.9	164.4	104.9	102.5
May	199.4	230.0	203.1	122.4	264.4	70.8	374.2	344.3	274.1	446.6	250.6	316.5	356.2	182.5	115.5	149.1	128.7	103.3	178.0	187.1	174.4	230.5	135.2	126.3	153.6	98.1	105 1
June	204.9	236.8	211.4	117.0	253.9	70.7	379.8	360.7	270.6	463.3	265.1	322.9	381.3	168.2	115.9	154.7	126.6	114.4	190.8	184.5	174.0	223.6	134.5	127.6	163.5	91.2	107.4
July	208.8	236.8	223.0	113.5	255.6	70.9	389.0	367.2	273.9	463.8	283.5	316.0	383.1	173.2	120.2	153.3	120.7	119.7	198.8	181.3	166.7	216.7	132.3	128.5	175.5	94.4	112.0
August	218.0	234.3	245.3	118.0	264.4	71.3	412.8	382.9	291.4	472.3	293.9	335.3	402.1	178.8	128.3	150.1	122.5	122.8	196.6	182.1	169.3	224.8	141.2	129.1	183.0	99.9	113.4
September	225.6	243.4	251.4	114.8	269.1	79.8	443.6	399.6	304.3	481.3	308.6	339.8	427.0	180.4	130.5	163.7	126.3	126.9	200.8	183.5	168.5	223.1	142.9	135.4	189.4	97.6	117.4
October	231.3	247.4	262.7	117.7	275.3	80.3	450.3	416.1	312.3	497.2	307.6	337.2	470.4	189.6	141.4	161.0	127.4	117.1	190.0	192.5	176.1	229.5	149.2	136.9	205.7	103.0	117.1
November	234.6	242.7	275.2	117.9	278.0	79.4	462.4	419.2	317.2	511.6	314.4	357.2	456.5	189.4	146.9	160.7	131.6	111.2	198.0	204.9	181.9	242.0	159.5	141.0	213.0	108.1	119.7
December	242.3	253.0	268.4	126.0	286.3	80.7	474.6	440.1	329.1	521.8	339.8	369.0	480.1	205.3	151.1	164.0	135.6	109.9	224.9	202.2	182.9	260.8	168.6	138.0	229.1	118.4	123.6
1943 January	247.4	258.5	309.0	127.4	294.5	78.5	489.1	441.4	330.2	527.0	344.3	382.0	479.8	217.4	154.8	165.1	130.0	107.6	225.9	194.6	180.4	263.5	168.5	133.3	240.8	108.1	123.4
February	252.1	284.6	311.7	123.0	298.2	79.1	497.2	448.0	328.3	517.2	359.1	394.8	485.0	235.5	154.7	171.5	131.3	105.3	213.1	200.4	183.7	275.5	171.1	136.8	242.8	122.4	124.7
March	255.1	293.6	314.6	121.4	302.2	78.9	515.3	456.2	341.8	533.4	367.7	398.8	487.5	238.1	157.3	175.2	129.6	104.6	203.5	204.7	184.7	277.6	170.3	137.0	247.2	125.2	125.7
April	258.4	302.3	321.5	121.8	305.5	77.0	517.3	461.1	348.6	534.4	360.9	408.1	503.6	252.6	153.8	175.5	129.7	110.7	193.8	213.7	186.5	278.8	168.1	134.9	247.6	119.6	124.8
May	263.2	306.1	339.8	118.0	311.8	75.4	523.2	467.3	351.7	538.3	363.2	414.0	513.8	257.3	155.0	175.9	126.1	114.0	205.0	222.1	190.0	281.4	170.7	139.0	252.4	117.0	123.0
June	265.6	304.5	335.7	112.7	320.3	74.9	524.1	476.5	358.0	548.0	377.7	422.3	519.5	260.9	154.4	179.6	124.9	117.3	214.6	227.7	194.4	285.2	157.2	139.9	256.4	119.8	121.8
July	266.3	321.0	347.6	111.1	321.2	71.4	524.5	472.7	349.7	543.8	374.8	409.3	519.2	264.2	149.9	183.2	118.9	116.2	213.8	225.6	189.5	284.9	171.5	152.0	255.9	121.2	118.7
August	267.0	329.0	354.1	111.3	325.6	70.0	534.2	468.4	351.8	521.0	379.0	413.2	510.2	268.3	151.3	178.2	118.3	122.0	217.9	226.6	189.1	289.9	174.6	152.1	266.2	122.5	115.2
September	272.4	347.3	369.2	108.4	332.7	70.0	549.8	481.3	356.4	519.8	388.4	422.3	534.5	265.1	153.3	189.9	115.9	117.4	205.9	226.8	191.5	291.7	167.9	160.9	279.3	127.3	117.2
October	275.1	352.1	396.7	108.2	336.7	69.5	552.9	482.6	361.5	515.1	390.5	424.4	535.8	288.9	151.5	185.2	113.9	115.4	206.2	231.1	192.2	289.9	169.9	152.1	286.0	129.3	118.3
November	275.7	358.5	377.8	108.9	338.3	69.3	549.6	481.0	364.6	507.7	389.5	422.3	532.3	293.5	155.9	185.8	116.5	115.4	235.4	231.8	192.5	296.5	174.1	158.2	294.5	131.7	118.5
December	272.9	361.7	340.4	110.7	336.5	68.9	536.8	482.5	366.9	495.2	401.3	411.7	534.3	295.8	156.3	176.7	119.4	119.0	252.6	227.9	194.9	294.3	172.9	156.6	294.7	135.3	117.6
1944 January	272.5	372.0	378.8	112.3	338.3	65.6	540.2	471.7	364.4	489.2	375.6	395.0	539.6	281.3	152.6	187.1	118.8	111.9	251.5	231.4	195.4	285.9	184.9	152.3	300.1	132.6	114.4
February	275.5	387.3	370.2	115.9	342.5	65.6	543.9	479.8	364.4	477.1	397.3	409.2	541.4	293.6	156.1	191.7	122.2	111.2	241.2	237.3	195.8	288.3	185.8	152.7	298.1	139.5	119.3
March	274.7	395.8	362.6	117.6	339.2	64.5	543.2	478.4	362.0	469.2	395.5	403.8	546.5	306.2	155.1	192.2	124.3	112.3	223.8	241.9	196.5	287.3	184.0	155.2	295.7	138.8	117.7
April	268.0	400.0	371.6	117.7	334.8	60.4	536.9	458.0	342.5	454.2	388.1	373.7	515.9	292.2	146.3	188.5	125.4	113.6	223.4	240.8	194.6	283.7	180.3	151.4	285.4	131.7	109.7
May	264.0	393.1	341.4	118.6	334.4	59.7	538.7	451.7	343.8	444.8	372.7	378.8	516.0	278.6	147.4	192.4	129.5	101.2	229.5	245.7	196.9	280.5	179.7	149.6	280.4	134.8	114.6
June	266.1	400.0	348.7	121.5	339.5	62.1	548.2	451.5	340.7	441.9	381.5	372.6	510.2	263.0	146.2	190.8	131.7	111.9	232.3	243.9	200.4	288.1	181.9	150.4	286.8	132.7	116.1
July	261.1	400.0	342.0	122.0	336.7	59.9	539.6	439.3	340.5	429.3	369.7	349.8	501.5	259.0	144.5	187.1	129.9	110.2	232.4	240.5	198.2	288.3	182.5	156.6	271.7	129.2	112.6
August	260.7	386.4	341.7	124.0	340.3	57.3	537.5	433.4	345.4	413.3	372.6	362.6	480.6	267.8	146.2	189.9	132.7	110.1	221.5	242.7	199.4	284.7	181.8	158.0	281.0	132.4	112.6
September	260.7	393.2	331.8	128.0	343.7	58.0	538.9	430.9	348.2	424.2	360.5	363.6	480.0	256.6	147.1	194.0	132.1	113.1	205.8	241.2	204.7	290.2	184.1	160.9	278.2	132.4	115.2
October	257.2	385.3	320.0	126.0	345.7	61.1	533.3	431.0	339.8	423.3	366.4	369.3	474.3	251.7	148.0	185.9	132.0	105.5	204.5	243.4	202.4	289.1	186.6	157.9	280.6	138.7	114.9
November	255.9	380.6	310.1	125.7	353.8	58.4	523.6	422.3	338.4	414.9	352.3	367.5	468.1	256.0	146.7	194.6	130.9	106.0	216.6	241.0	200.3	291.3	187.8	156.5	285.2	135.8	113.0
December	257.8	391.8	302.5	127.5	339.9	62.6	528.7	431.4	343.1	421.8	365.8	373.3	474.1	265.7	146.9	182.6	135.4	107.3	237.0	243.5	205.7	292.5	189.5	158.6	297.5	138.4	117.5

EARNINGS, HOURS, EMPLOYMENT, PAYROLLS, ALL WAGE EARNERS, 25 MANUFACTURING INDUSTRIES

NOTE: *Hourly earnings are not wage rates, because they include overtime and other monetary compensation*

Date	Average Hourly Earnings	Average Weekly Earnings	Average Actual Hours per Week per Wage Earner	Average Nominal Hours per Week per Wage Earner	Index Numbers, 1923=100							
					Hourly Earnings		Weekly Earnings		Actual Hours per Week per Wage Earner	Employment[b]	Total Man Hours[b]	Payrolls[b]
					Actual	Real[a]	Actual	Real[a]				
1943 December	$1.045	$47.15	45.1	43.7	193.2	185.9	177.2	170.5	91.7	154.0	141.2	272.9
1944 January	1.046	47.56	45.2	43.7	193.3	186.0	178.7	172.0	91.9	152.5	140.1	272.5
February	1.048	48.15	45.7	43.9	193.7	187.1	180.9	174.8	92.9	152.3	141.5	275.5
March	1.053	48.41	45.8	44.0	194.6	187.8	181.9	175.6	93.1	151.0	140.6	274.7
April	1.057	48.09	45.2	44.0	195.4	187.5	180.7	173.4	91.9	148.3	136.3	268.0
May	1.062	48.46	45.5	44.1	196.3	187.7	182.1	174.1	92.5	145.0	134.1	264.0
June	1.069	49.30	45.9	44.2	197.6	189.1	185.3	177.3	93.3	143.6	134.0	266.1
July	1.072	48.86	45.4	44.3	198.2	188.8	183.6	174.9	92.3	142.2	131.3	261.1
August	1.070	48.98	45.6	44.3	197.8	188.4	184.1	175.3	92.7	141.6	131.3	260.7
September	1.080	49.42	45.6	44.4	199.6	190.1	185.7	176.9	92.7	140.4	130.2	260.7
October	1.079	49.39	45.7	44.3	199.4	189.9	185.6	176.8	92.9	138.6	128.8	257.2
November	1.079*r*	49.42*r*	45.6	44.2	199.4*r*	189.4*r*	185.7*r*	176.4*r*	92.7	137.8*r*	127.7*r*	255.9*r*
December	1.085	49.82	45.8	44.3	200.6	189.8	187.2	177.1	93.1	137.7	128.2	257.8
Annual Average	$1.067	$48.82	45.6	44.1	197.2	188.5	183.5	175.4	92.7	144.3	133.8	264.8

r Revised

EARNINGS AND HOURS, ALL WAGE EARNERS, DECEMBER, 1944

NOTE: *Hourly earnings are not wage rates, because they include overtime and other monetary compensation*

INDUSTRY	Average Earnings				Average Hours per Week per Wage Earner			
	Hourly		Weekly		Actual		Nominal	
	Dec.	Nov.	Dec.	Nov.	Dec.	Nov.	Dec.	Nov.
Agricultural implement	$1.155	$1.148	$54.45	$53.94	47.1	47.0	47.4	47.3
Automobile[1]	1.309	1.316*r*	57.04	57.69*r*	43.6	43.8*r*	42.7	43.1
Boot and shoe	.766	.758	32.16	31.83	42.0	42.0	44.6	44.5
Chemical	1.096	1.092	49.42	49.65*r*	45.1	45.5*r*	45.9	46.0
Rayon producing[2]	.910	.904*r*	38.32	38.39*r*	42.1	42.5*r*	45.7	45.9
Cotton—North	.801	.785	36.26	33.99	45.3	43.3	43.3	43.0
Electrical manufacturing[3]	1.155	1.145	53.42	52.63	46.2	46.0	42.5	42.4
Furniture[4]	1.032	1.020	48.74	47.35	47.2	46.4	45.9	45.9
Hosiery and knit goods	.837	.832	34.29	34.38	41.0	41.3	41.5	41.5
Iron and steel[5]	1.197	1.202	53.83	57.34	45.0	47.7	43.0	43.0
Leather tanning and finishing	.932	.919	42.96	41.82	46.1	45.5	44.6	44.5
Lumber and millwork	1.104	1.095*r*	50.87	50.69	46.1	46.3*r*	47.2	47.2
Meat packing	.929	.927	49.05	47.09	52.8	50.8	41.5	41.4
Paint and varnish	1.026	1.019	48.48	49.05	47.2	48.1	44.5	44.6
Paper and pulp	.908	.911	44.26	44.57	48.8	49.0	44.6	44.6
Paper products	.863	.859*r*	38.24	37.94*r*	44.3	44.2*r*	43.1	43.2
Printing—book and job	1.083	1.089	46.79	47.26	43.2	43.4	41.5	41.5
Printing—news and magazine	1.157	1.161	48.39	47.87	41.8	41.2	40.8	40.8
Rubber	1.247	1.230	60.04	58.06	48.1	47.2	46.9	46.9
1. Rubber tires and tubes	1.361	1.345	65.84	63.86	48.4	47.5	46.7	46.7
2. Other rubber products	1.057	1.039	50.46	48.61	47.7	46.8	47.1	47.1
Silk and rayon	.801	.801	35.59	34.86	44.4	43.5	42.2	42.2
Wool	.930	.919*r*	40.82	39.48*r*	43.9	43.0*r*	42.9	42.9
1. Woolen and worsted goods	.911	.898	39.80	38.09	43.7	42.4	42.4	42.4
2. Other woolen products[6]	.957	.949*r*	42.38	41.59*r*	44.3	43.8*r*	43.7	43.7*r*
Foundries and machine shops	1.217	1.206	58.44	57.08	48.0	47.3	45.8	45.5
1. Foundries	1.157	1.147	55.46	54.40	47.9	47.4	44.2	44.1
2. Machines and machine tools	1.174	1.169	58.38	56.88	49.7	48.7	47.2	47.1
3. Heavy equipment	1.352	1.324	64.49	61.83	47.7	46.7	46.1	46.1
4. Hardware and small parts	1.137	1.131	53.93	53.55	47.4	47.3	44.0	43.9
5. Other products	1.176	1.175	56.23	55.46	47.8	47.2	46.1	46.1
25 INDUSTRIES	$1.085	$1.079*r*	$49.82	$49.42*r*	45.8	45.6	44.3	44.2
Cement	$ .890	$ .896	$39.13	$39.26	43.9	43.8	44.9	44.8
Petroleum refining	1.291	1.292	59.32	60.10	45.9	46.5	43.7	43.7
27 INDUSTRIES	$1.087	$1.081	$49.87	$49.49*r*	45.8	45.6	44.3	44.2
Aircraft	$1.203	$1.201	$55.28	$55.05	46.0	45.8	48.3	48.3
Shipbuilding	1.402	1.413	66.93	67.70	47.8	47.9	48.5	48.5

See footnotes on page 53.

EARNINGS, EMPLOYMENT, MAN HOURS, AND PAYROLLS, ALL WAGE EARNERS, DECEMBER, 1944

Index Numbers, 1923=100

NOTE: *Hourly earnings are not wage rates, because they include overtime and other monetary compensation*

Industry	Average Earnings						Employment*b*		Total Man Hours Worked*b*		Payrolls*b*	
	Hourly, Actual		Weekly									
			Actual		Real *a*							
	Dec.	Nov.	Dec.	Nov.	Dec.	Nov.	Dec.	Nov.	Dec.	Nov.	Dec.	Nov.
Agricultural implement	207.7	206.5	197.9	196.1	187.2	186.2	198.0	194.1	188.5	184.2	391.8	380.6
Automobile[1]	207.1	208.2*r*	189.3	191.4*r*	179.1	181.8*r*	159.8*c*	162.0*r*	146.1*c*	148.7*r*	302.5*c*	310.1*r*
Boot and shoe	154.7	153.1	142.3	140.8	134.6	133.7	89.6	89.3	82.5	82.2	127.5	125.7
Chemical	215.3	214.5	188.6	189.5	178.4	180.0	180.2	186.7*r*	157.9	164.9*r*	339.9	353.8
Cotton—North	180.0	176.4	170.7	160.0	161.5	151.9	36.7	36.5	34.8	33.1	62.6	58.4
Electrical manufacturing[3]	203.3	201.6	197.2	194.3	186.6	184.5	268.1*c*	269.5*c*	259.3*c*	259.3*c*	528.7*c*	523.6*c*
Furniture[4]	199.6	197.3	195.4	189.9	184.9	180.3	136.0	134.8	133.1	129.8	265.7	256.0
Hosiery and knit goods	219.1	217.8	194.1	194.6	183.6	184.8	75.7	75.4	67.1	67.3	146.9	146.7
Iron and steel[5]	200.8	201.7	157.3	167.6	148.8	159.2	116.1	116.1	90.6	96.0	182.6	194.6
Leather tanning and finishing	191.8	189.1	185.5	180.6	175.5	171.5	73.0	72.5	70.7	69.3	135.4	130.9
Lumber and millwork	233.4	231.5*r*	217.2	216.4	205.5	205.5	49.4	49.0	46.0	45.8*r*	107.3	106.0
Meat packing	196.4	196.0	208.4	200.0	197.2	189.9	113.7	108.3	120.7	110.7	237.0	216.6
Paint and varnish	181.9	180.7	177.2	179.3	167.6	170.3	137.4	134.4	133.4	133.1	243.5	241.0
Paper and pulp	180.2	180.8	169.7	170.9	160.5	162.3	121.2	117.2	114.2	110.9	205.7	200.3
Paper products	189.3	188.4*r*	175.6	174.2*r*	166.1	165.4*r*	166.6	167.2*r*	155.1	155.3*r*	292.5	291.3*r*
Printing—book and job	165.8	166.8	156.2	157.8	147.8	149.9	121.3	119.0	114.1	112.6	189.5	187.8
Printing—news and magazine	167.0	167.5	154.9	153.3	146.5	145.6	102.4	102.1	95.1	93.5	158.6	156.5
Rubber	199.2	196.5	214.2	207.1	202.6	196.7	138.9	137.7	149.2	145.1	297.5	285.2
Silk and rayon	161.5	161.5	154.5	151.4	146.2	143.8	89.6	89.7	85.6	83.9	138.4	135.8
Wool	184.2	182.0*r*	170.3	164.7*r*	161.1	156.4*r*	69.0	68.6*r*	63.8	62.1*r*	117.5	113.0*r*
Foundries and machine shops	212.4	210.5	206.0	201.2	194.9	191.1	209.4	209.9	202.7	200.2	431.4	422.3
1. Foundries	196.1	194.4	187.3	183.7	177.2	174.5	183.2	184.2	174.8	173.9	343.1	338.4
2. Machines and machine tools	213.8	212.9	213.8	208.4	202.3	197.9	197.3*c*	199.1*c*	196.9*c*	194.7*c*	421.8*c*	414.9*c*
3. Heavy equipment	201.8	197.6	195.3	187.3	184.8	177.9	187.3*c*	188.1*c*	181.3*c*	178.1*c*	365.8*c*	352.3*c*
4. Hardware and small parts	222.1	220.9	217.4	215.8	205.7	204.9	171.7	170.3	167.8	166.0	373.3	367.5
5. Other products	210.0	209.8	205.7	202.9	194.6	192.7	230.5	230.7	225.9	223.1	474.1	468.1
25 INDUSTRIES	200.6	199.4*r*	187.2	185.7*r*	177.1	176.4*r*	137.7	137.8*r*	128.2	127.7*r*	257.8	255.9*r*

NOTE: No basic 1923 data are available, hence no indexes are given for the following: Rayon producing, rubber tires and tubes, other rubber products, woolen and worsted goods other woolen products, cement, petroleum refining, "27 Industries," aircraft and shipbuilding.

See footnotes on page 53.

(*Continued from page* 45)

month before the outbreak of World War II. In the same periods, payrolls have risen 100.2% and 194.0%, respectively.

MAN HOUR TRENDS

Revised indexes of total man hours worked and total payrolls disbursed from 1936 through 1944 are shown in the accompanying special tables. Adjustments in the employment indexes to conform with the levels of the 1939 Census of Manufactures are responsible for these revisions.

Total man hours showing the effect of increasing employment from January, 1936, through March, 1937, also rose in that period. From March, 1937, both reductions in employment and shorter working hours contributed toward the declines in man hours, which fell to a low point of 51.0 (1923=100) in June, 1938. While this level was slightly above the depression lows of late 1931, the years 1932 and 1933 and several months of 1934, it was lower than in any other month.

Reversal of Trend

Increasing employment and the lengthening of the work week were responsible for a reversal of trend in man hours after June, 1938. They rose steadily through 1939, fell off in early 1940 but turned upward again in June, 1940. In January, 1942, they passed the previous peak level of 111.7 (1923=100) established in July, 1920.

They continued rising and reached a new high level of 142.6 (1923=100) in October and November, 1943. Although they tapered off from that peak during 1944 because of successive declines in employment, the net loss from the peak to December, 1944, was only 10.1%.

COURSE OF PAYROLLS

Total payrolls, because they reflect changes in hourly earnings in addition to those in the length of the work week and in employment, are more sensitive and show greater variation from month to month than do any of the other series.

June, 1938, Low Point

They moved generally upward from January, 1936, to 109.9 (1923=100) in May, 1937, from which they fell off to a low point of 67.4 (1923=100) in June, 1938. They were still higher than during the latter part of 1921, the years 1931 through 1934 and several months of 1935.

From June, 1938, the trend of payrolls was generally upward—small reductions in some months, caused by declines in weekly working hours, were offset by larger increases in subsequent months. The previous peak for payrolls of 124.9 (1923=100), established in July, 1920, was surpassed in December, 1940, and exceeded in all subsequent months. Longer weekly working hours, with additional premium overtime payments as well as larger employment, caused payrolls to advance throughout 1941, 1942 and 1943, and to reach a new peak level of 275.7 (1923=100) in November, 1943. Reductions in employment after that served to turn the trend generally downward through 1944. The December, 1944, level of 257.8 (1923=100) was higher than during any month before April, 1943, and only 6.5% below the November, 1943, high for payrolls.

CEMENT

In the cement industry, the number of workers and their hourly and weekly earnings were reduced in December despite a fractional increase in weekly working hours. For a work week of 43.9 hours, they averaged $39.13, or $.890 for each hour of work. Increased employment

EARNINGS AND HOURS, MALE AND FEMALE WAGE EARNERS, DECEMBER, 1944

NOTE: *Hourly earnings are not wage rates, because they include overtime and other monetary compensation*

INDUSTRY	ALL MALE						FEMALE					
	Average Earnings				Average Hours per Week per Wage Earner		Average Earnings				Average Hours per Week per Wage Earner	
	Hourly		Weekly				Hourly		Weekly			
	Dec.	Nov.	Dec.	Nov.	Dec.	Nov.	Dec.	Nov.	Dec.	Nov.	Dec.	Nov.
Agricultural implement	$1.178	$1.171	$55.87	$55.37	47.4	47.3	$ .964	$ .960	$43.18	$42.84	44.8	44.6
Automobile[1]	1.360	1.387*r*	60.36	61.06*r*	44.4	44.0*r*	1.158	1.120*r*	47.83	48.50*r*	41.3	43.3*r*
Boot and shoe	.916	.911	39.72	39.63	43.4	43.5	.646	.636	26.45	25.97	41.0	40.8
Chemical	1.189	1.185	54.66	54.84*r*	46.0	46.3	.768	.770*r*	32.49	32.90*r*	42.3	42.7*r*
Rayon producing[2]	1.018	1.010	44.52	44.69*r*	43.7	44.2*r*	.715	.714*r*	28.17	28.30*r*	39.4	39.6*r*
Cotton—North	.880	.860	42.81	40.03	48.6	46.5	.700	.689	29.11	27.37	41.6	39.7
Electrical manufacturing[3]	1.309	1.299	62.79	61.66	48.0	47.5	.907	.903	39.66	39.52	43.7	43.7
Furniture[4]	1.088	1.073	51.94	50.39	47.7	47.0	.913	.906	42.17	41.00	46.2	45.3
Hosiery and knit goods	1.121	1.130	50.49	50.88	45.0	45.0	.718	.710	28.33	28.35	39.5	40.0
Iron and steel[5]	1.217	1.222	55.12	58.67	45.3	48.0	.924	.933	37.83	41.08	40.9	44.0
Leather tanning and finishing	.955	.941	44.96	43.77	47.1	46.5	.802	.795	32.96	31.98	41.1	40.2
Lumber and millwork	1.128	1.119*r*	52.20	51.95	46.3	46.4*r*	.828	.834*r*	36.39	37.15	43.9	44.5*r*
Meat packing	.977	.980	53.19	51.58	54.4	52.6	.736	.717	34.73	32.02	47.2	44.7
Paint and varnish	1.057	1.048	50.45	51.00	47.7	48.7	.813	.812	35.75	36.23	44.0	44.6
Paper and pulp	.935	.939	46.41	46.77	49.6	49.8	.669	.671	28.42	28.64	42.5	42.7
Paper products	.993	.988*r*	46.37	45.73*r*	46.7	46.3*r*	.667	.664*r*	27.43	27.41*r*	41.2	41.3*r*
Printing—book and job	1.322	1.327	58.14	58.26	44.0	43.9	.680	.679	28.51	28.92	42.0	42.6
Printing—news and magazine	1.257	1.269	52.76	52.42	42.0	41.3	.746	.743	30.76	30.38	41.2	40.9
Rubber	1.384	1.366	69.25	66.94	50.0	49.0	.905	.893	39.79	38.68	44.0	43.3
1. Rubber tires and tubes	1.456	1.439	72.53	70.39	49.8	48.9	1.021	1.008	44.67	43.37	43.8	43.0
2. Other rubber products	1.228	1.207	62.00	59.42	50.5	49.2	.800	.790	35.30	34.41	44.1	43.5
Silk and rayon	.899	.893	43.27	42.02	48.1	47.0	.645	.656	25.53	25.57	39.6	39.0
Wool	.999	.985*r*	46.10	44.21*r*	46.2	44.9*r*	.812	.808*r*	32.93	32.46*r*	40.5	40.2*r*
1. Woolen and worsted goods	.974	.957	44.92	42.54	46.1	44.4	.817	.810	32.98	32.18	40.4	39.7
2. Other woolen products[6]	1.032	1.022*r*	47.70	46.46*r*	46.2	45.5*r*	.804	.806*r*	32.83	32.96*r*	40.8	40.9*r*
Foundries and machine shops	1.277	1.266	62.58	60.98	49.0	48.2	.964	.963	42.75	42.39	44.3	44.0
1. Foundries	1.181	1.170	57.25	56.28	48.5	48.1	.914	.912	39.24	37.72	42.9	41.4
2. Machines and machine tools	1.233	1.229	62.67	61.27	50.8	49.9	.903	.903	40.67	39.65	45.1	43.9
3. Heavy equipment	1.390	1.360	67.03	63.98	48.2	47.0	1.025	1.026	44.76	45.21	43.7	44.1
4. Hardware and small parts	1.221	1.216	59.80	59.30	49.0	48.8	.906	.898	39.50	39.29	43.6	43.7
5. Other products	1.244	1.243	61.00	60.06	49.0	48.3	.987	.986	44.08	43.75	44.7	44.4
25 INDUSTRIES	$1.183	$1.179	$55.71	$55.27*r*	47.1	46.9	$ .771	$ .766	$32.23	$31.79*r*	41.6	41.3
Cement	$ .890	$ .896	$39.13	$39.26	43.9	43.8	....	....	....	....	....	....
Petroleum refining	1.291	1.292	59.32	60.10	45.9	46.5	....	....	....	....	....	....
27 INDUSTRIES	$1.182	$1.178*r*	$55.63*r*	$55.21*r*	47.1	46.9	....	....	....	....	....	....
Aircraft	$1.312	$1.313	$62.02	$62.12	47.3	47.3	$1.042	$1.039	$46.05	$45.55	44.2	43.9
Shipbuilding	1.421	1.433	68.19	68.90	48.0	48.1	1.122	1.146	50.18	52.58	44.7	45.9

See footnotes on page 53.

among unskilled workers in petroleum refineries served to reduce both average earnings and hours for that group of workers in December. Reduced employment among the skilled workers kept hourly earnings for that numerically larger group unchanged at the November level in December, despite a slightly smaller work week. As a result, earnings and hours averaged by all wage earners combined were lower in December. They received $1.291 for each hour of work and $59.32 for a week of 45.9 hours.

AIRCRAFT, SHIPYARDS

In aircraft factories, hourly and weekly earnings rose to new peak levels and more hours were worked. Additional workers were added to each class of employees but made little difference in the proportion of persons in each group. The December averages for all workers in the industry were $1.203 an hour, 46.0 hours a week and $55.28 for one week's work.

Shorter working hours in shipyards were largely responsible for reductions in hourly and weekly earnings in December because overtime payments were smaller. The December levels were only slightly below those in November and higher than in any other month. The averages were $1.402 an hour and $66.93 for a week consisting of 47.8 hours of work.

LABOR STATISTICS IN DECEMBER

Hourly earnings rose 0.6% in December and averaged $1.085. Since December, 1943, they have advanced 3.8% and since 1929, 83.9%.

Weekly earnings were 0.8% higher in December. At $49.82 they were 5.7% above those a year before and 74.5% more than in 1929.

"Real" weekly earnings advanced 0.4% in December and exceeded those in the same month of last year by 3.9%. The quantity of goods and services that could be purchased with weekly earnings in December was 65.2% more than in the year 1929.

Hours per week were increased 0.2 hour, or 0.4%, in December. Since December, 1943, the rise has been 0.7 hour, or 1.6%, and since 1929, they have declined 2.5 hours, or 5.2%.

Employment was curtailed 0.1% in December. It was 10.6% less than in December a year before, but 36.3% more than in 1929.

Man hours rose 0.4% in December but remained 9.2% below those a year before. They were, however, 29.2% above the average for 1929.

Payrolls were 0.7% larger in December than in November, but were 5.5% smaller

EARNINGS AND HOURS, UNSKILLED AND SKILLED AND SEMI-SKILLED MALE WAGE EARNERS, DECEMBER, 1944

NOTE: *Hourly earnings are not wage rates, because they include overtime and other monetary compensation*

INDUSTRY	UNSKILLED						SKILLED AND SEMI-SKILLED					
	Average Earnings				Average Hours per Week per Wage Earner		Average Earnings				Average Hours per Week per Wage Earner	
	Hourly		Weekly				Hourly		Weekly			
	Dec.	Nov.	Dec.	Nov.	Dec.	Nov.	Dec.	Nov.	Dec.	Nov.	Dec.	Nov.
Agricultural implement	$ .964	$ .960	$46.06	$44.99	47.8	46.9	$1.210	$1.202	$57.29	$56.93	47.4	47.4
Automobile[1]	1.107	1.118*r*	46.70	47.63*r*	42.2	42.6*r*	1.391	1.421*r*	62.13	62.87*r*	44.7	44.2*r*
Boot and shoe	.475	.474	21.12	21.20	44.4	44.7	.938	.932	40.62	40.52	43.3	43.5
Chemical	.970	.959*r*	44.88	44.43*r*	46.3	46.3*r*	1.254	1.248*r*	57.55	57.75*r*	45.9	46.3
Rayon producing[2]	.804	.790*r*	33.45	32.58*r*	41.6	41.3*r*	1.051	1.042*r*	46.32	46.59*r*	44.1	44.7*r*
Cotton—North	.773	.762	36.86	36.32	47.7	47.7	.931	.910	45.69	41.84	49.1	46.0
Electrical manufacturing[3]	.931	.926	43.39	42.24	46.6	45.6	1.359	1.348	65.45	64.34	48.2	47.7
Furniture[4]	.912	.893	42.41	39.90	46.5	44.7	1.122	1.107	53.86	52.52	48.0	47.4
Hosiery and knit goods	.773	.763	36.56	35.89	47.3	47.0	1.156	1.165	51.79	52.26	44.8	44.9
Iron and steel[5]	.934	.939	41.08	43.19	44.0	46.0	1.270	1.273	57.84	61.60	45.5	48.4
Leather tanning and finishing	.732	.720	33.07	33.08	45.2	45.9	1.013	1.001	48.19	46.76	47.6	46.7
Lumber and millwork	.809	.808*r*	35.50	36.38	43.9	45.0*r*	1.224	1.210*r*	57.54	56.74	47.0	46.9*r*
Meat packing	.810	.801	43.13	41.61	53.2	51.9	1.052	1.057	57.87	55.92	55.0	52.9
Paint and varnish	.852	.851	41.78	42.11	49.0	49.5	1.145	1.134	54.08	54.80	47.2	48.3
Paper and pulp	.759	.767	34.59	36.02	45.6	47.0	1.002	1.005	51.45	51.24	51.3	51.0
Paper products	.755	.763*r*	33.10	33.11*r*	43.8	43.4*r*	1.098	1.086*r*	52.82	51.79*r*	48.1	47.7*r*
Printing—book and job	.882	.873	38.65	37.94	43.8	43.5	1.410	1.415	62.09	62.24	44.0	44.0
Printing—news and magazine	.824	.816	31.88	30.70	38.7	37.6	1.371	1.385	58.85	58.70	42.9	42.4
Rubber	1.076	1.062	52.94	51.93	49.2	48.9	1.393	1.374	69.71	67.36	50.1	49.0
1. Rubber tires and tubes	1.118	1.104	55.01	53.88	49.2	48.8	1.467	1.450	73.13	70.95	49.8	48.9
2. Other rubber products	.768	.770	37.91	38.18	49.3	49.6	1.234	1.214	62.37	59.74	50.5	49.2
Wool	.817	.804*r*	36.53	34.75*r*	44.7	43.2*r*	1.081	1.067*r*	50.61	48.72*r*	46.8	45.7
1. Woolen and worsted goods	.833	.814	36.71	34.18	44.1	42.0	1.059	1.043	50.29	48.01	47.5	46.0
2. Other woolen products[6]	.778	.784*r*	36.10	36.11*r*	46.4	46.1*r*	1.104	1.092*r*	50.93	49.46*r*	46.1	45.3
Foundries and machine shops	1.007	.992	48.47	47.44	48.1	47.8	1.316	1.305	64.66	62.96	49.1	48.2
1. Foundries	.963	.950	46.17	44.92	48.0	47.3	1.240	1.226	60.26	59.28	48.6	48.3
2. Machines and machine tools	1.051	1.051	52.78	52.01	50.2	49.5	1.260	1.255	64.15	62.66	50.9	49.9
3. Heavy equipment	1.036	1.004	49.31	47.76	47.6	47.5	1.431	1.402	69.10	65.87	48.3	47.0
4. Hardware and small parts	.956	.949	46.30	46.36	48.4	48.8	1.277	1.272	62.70	62.06	49.1	48.8
5. Other products	1.010	.996	47.92	46.69	47.5	46.9	1.271	1.272	62.59	61.68	49.2	48.5
24 INDUSTRIES[7]	$ .907	$ .901	$41.72	$41.57*r*	46.0	46.1	$1.246	$1.242*r*	$58.97	$58.45*r*	47.3	47.1
Cement	$ .760	$ .772	$32.50	$33.08	42.8	42.8	$ .905	$ .910	$39.91	$39.96	44.1	43.9
Petroleum refining	.963	.970	40.28	43.39	41.8	44.7	1.325	1.325	61.48	61.92	46.4	46.7
26 INDUSTRIES[7]	$ .907	$ .901	$41.63	$41.52*r*	45.9	46.1	$1.245	$1.241*r*	$58.86	$58.36*r*	47.3	47.0*r*
Aircraft	$1.129	$1.128	$51.80	$50.35	45.9	44.6	$1.323	$1.323	$62.63	$62.83	47.4	47.5
Shipbuilding	1.012	1.010	47.07	47.35	46.5	46.9	1.458	1.472	70.16	70.96	48.1	48.2

NOTE: The wage data here given are for cash payments only and do not take into consideration the value of such wage equivalents as reduced or free house rents or other special services rendered by the company to employees. Various forms of wage equivalents are in use in industrial establishments in many localities, but the part which they play as compensation for work performed cannot be taken into account in a study of this character.

[1] Based on data collected by the Automobile Manufacturers Association and THE CONFERENCE BOARD.

[2] Based on data collected by the Textile Economics Bureau, Inc. and THE CONFERENCE BOARD.

[3] Revised series; data from July, 1939 available upon request.

[4] Includes wood, metal, and upholstered household and office furniture.

[5] Based on data collected by the American Iron and Steel Institute and THE CONFERENCE BOARD. Beginning January, 1944, average weekly earnings and average hours per week are derived from the average number of wage earners and are not strictly comparable with those for previous months which were derived from the total number of wage earners in one week.

[6] Principally rugs.

[7] Silk and rayon industry not included, as adequate data for unskilled and skilled groups are not available for this industry.

[a] Indexes of "real" earnings are based upon THE CONFERENCE BOARD'S indexes of the cost of living in the United States on prewar budgets.

[b] Revised indexes. Employment is adjusted to the levels of the 1939 Census of Manufactures; data from January, 1936, to date appeared in the January *Management Record*. Revised indexes of total man hours and payrolls back to 1936 appear on pages 46-49.

[c] Not published from January, 1942, through May, 1944. Indexes for the intervening period available on request. This step is consistent with security policies now in effect for Federal Government agencies.

r Revised.

than December, 1943, payrolls. As compared with the average for 1929, they have increased 137.8%.

Wage earners in these industries averaged $1.085 for each hour of work in December, which was more than ever before. For a work week of 45.8 hours, they received the highest recorded weekly income, $49.82. "Real" weekly earnings, or the purchasing power of dollar income, rose to a secondary peak only 0.1% below the June, 1944, high.

Although employment was reduced in December, longer working hours and higher earnings served to raise both man hours and payrolls above the November levels. They remained, however, below the peak levels of November, 1943.

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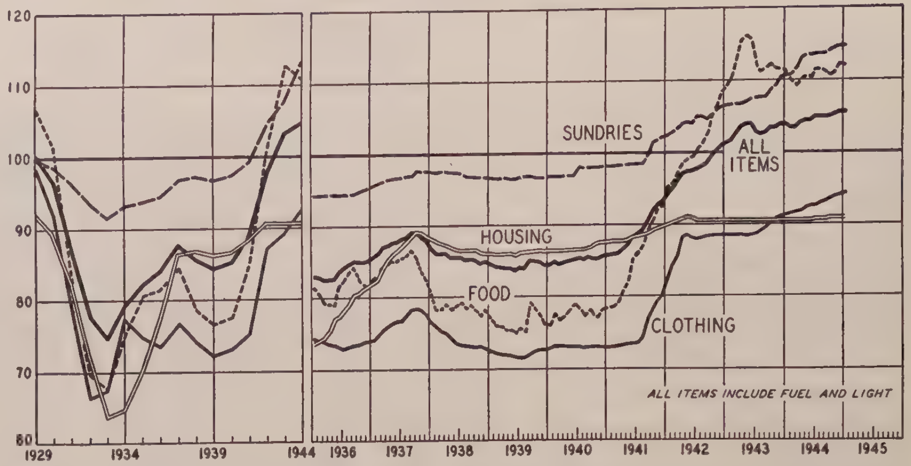
Cost of Living in January

Cost of Living in the United States

Source: The Conference Board

Index Numbers, 1923=100



TWO SERIES of cost of living indexes were previously published by The Conference Board, one based on a prewar budget and the other based on a variable budget which took into account the effect of wartime rationing and shortages of various commodities and services.

After continuing these series for three years, it was discovered that the variation between them was not great enough to warrant their continuation. It was decided to eliminate the wartime series and the accompanying tables present only indexes based on a prewar budget. They are a continuation of the series that were found in the prewar summary table in previous issues of this publication. Reasons for this change are described more fully in the article on page 42 of this issue.

The Conference Board's index of living costs in the United States continued unchanged from mid-December to mid-January. At 105.7 (1923=100), the January index was 1.7% higher than a year ago and 22.9% greater than in January, 1941, base month of the Little Steel formula.

Over the month, clothing prices and sundries costs each advanced fractionally, while a slight decline was registered in food, reflecting in part seasonal reductions in egg prices. Rents were surveyed in January for the quarterly period October, 1944, to January, 1945, and showed no change. Items of the fuel and light group, which now average only 0.2% above January, 1944, continued at the same level over the month.

The purchasing value of the 1923 dollar remained at 94.6 cents in January as in December, compared with 96.2 cents a year earlier and 116.3 cents in January, 1941.

INDIVIDUAL CITY SURVEYS

In twenty-nine of the sixty-three industrial cities surveyed in January by The Conference Board, total living costs rose. The more important increases, those of 0.3% or more, occurred in Baltimore, Boston, Buffalo, Dayton, Duluth, Evansville, Grand Rapids, Lewistown, New Haven, New Orleans, Parkersburg and Youngstown. In eight cities—Birmingham, Bridgeport, Chattanooga, Cleveland, Des Moines, Detroit, Huntington and Meadville—no change was recorded, while in twenty-six other cities there were month-to-month declines, the largest one of 0.6%, taking place in Seattle. Indexes for Front Royal, Virginia, were not computed in January.

Between January, 1944, and January, 1945, living costs rose in all cities surveyed with the single exception of Newark, where there was a decline of 0.9%. The largest yearly increase amounted to 4.3% and occurred in Toledo, although there were rises of more than 3.0% in the following cities: Cleveland, Evansville, Trenton and Youngstown.

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Division of Labor Statistics

COST OF LIVING IN THE UNITED STATES, AND PURCHASING VALUE OF THE DOLLAR

Date	Weighted Average of All Items	Food	Housing[1]	Clothing			Fuel and Light			Sundries	Purchasing Value of Dollar
				Total	Men's	Women's	Total[2]	Electricity	Gas		
Index Numbers, 1923=100											
1944 January	103.9	111.5*a*	90.8	91.2	100.4	82.0	95.6	67.0	94.6	110.7	96.2
February	103.5	110.0	90.8	91.6	101.0	82.1	96.4	67.0	94.6	110.8	96.6
March	103.5	109.3	90.8	91.7	101.2	82.2	95.9	67.0	94.6	111.8	96.6
April	104.2	110.1	90.8	91.9	101.6	82.2	95.9	67.0	94.6	113.1	96.0
May	104.6	110.6	90.8	92.3	101.8	82.8	95.9	67.0	94.6	113.5	95.6
June	104.5	110.5	90.8	92.5	101.8	83.1	95.7	67.0	94.6	113.5	95.7
July	105.0	111.7	90.9	92.5	101.9	83.1	95.7	66.9	94.5	113.6	95.2
August	105.0	111.6	90.9	93.0	102.1	83.9	95.7	66.9	94.5	113.6	95.2
September	105.0	111.3	90.9	93.2	102.3	84.0	95.8	66.9	94.5	113.8	95.2
October	105.0	110.8	91.0	93.6	102.4	84.8	95.8	66.9	94.5	114.2	95.2
November	105.3	111.1	91.0	93.9	102.9	84.8	95.8	66.9	94.5	114.6	95.0
December	105.7	112.3*b*	91.0	94.0	103.0	84.9	95.8	66.9	94.5	114.8	94.6
1945 January	105.7	112.1*c*	91.0	94.2	103.4	84.9	95.8	66.9	94.5	114.9	94.6
Percentage Changes											
Dec. 1944 to Jan. 1945	0	–0.2	0	+0.2	+0.4	0	0	0	0	+0.1	0
Jan. 1944 to Jan. 1945	+1.7	+0.5	+0.2	+3.3	+3.0	+3.5	+0.2	–0.1	–0.1	+3.8	–1.7

[1] Since October, 1943: data on housing collected quarterly, January 15, April 15, July 15, and October 15.

[2] Includes fuel as well as electricity and gas.

*a*Based on food price indexes of The Conference Board for January 13, 1944

*b*Based on food price indexes for December 14, 1944.

*c*Based on food price indexes for January 15, 1945.

COST OF LIVING IN 60 CITIES

Source: The Conference Board

Note: *These indexes do NOT show intercity differences in price level or standards of living. They show only changes in living costs in each city, which changes may be compared with those for other cities.*

City	Index Numbers Jan., 1939=100			Percentage Changes	
	Jan. 1945	Dec. 1944	Jan. 1944	Dec. 1944 to Jan. 1945	Jan. 1944 to Jan. 1945
Akron					
Food	147.4	147.4	150.4	0	–2.0
Housing[1]	113.8	113.8	113.7	0	+0.1
Clothing	128.6	128.6	123.8	0	+3.9
Fuel and light	112.5	112.5	110.7	0	+1.6
Housefurnishings	119.9	119.1	118.4	+0.7	+1.3
Sundries	124.3	124.1	120.1	+0.2	+3.5
Weighted Total	128.7	128.6	127.5	+0.1	+0.9
Atlanta					
Food	150.5	150.9	147.8	–0.3	+1.8
Housing[1]	99.2	99.2	99.2	0	0
Clothing	130.2	129.1	124.8	+0.9	+4.3
Fuel and light	113.1	113.1	112.2	0	+0.8
Housefurnishings	123.4	123.9	117.7	–0.4	+4.8
Sundries	119.9	119.8	115.7	+0.1	+3.6
Weighted Total	126.4	126.5	123.3	–0.1	+2.5
Baltimore					
Food	150.1	149.1	148.2	+0.7	+1.3
Housing[1]	103.2	103.2	103.2	0	0
Clothing	133.9	133.8	122.1	+0.1	+9.7
Fuel and light	107.5	107.5	107.9	0	–0.4
Housefurnishings	138.9	138.9	132.8	0	+4.6
Sundries	125.8	125.9	122.3	–0.1	+2.9
Weighted Total	130.4	130.0	127.3	+0.3	+2.4
Birmingham					
Food	155.2	155.3	152.9	–0.1	+1.5
Housing[1]	105.7	105.7	105.7	0	0
Clothing	132.0	131.8	127.5	+0.2	+3.5
Fuel and light	104.5	103.9	103.3	+0.6	+1.2
Housefurnishings	120.2	120.2	117.8	0	+2.0
Sundries	121.2	121.2	116.2	0	+4.3
Weighted Total	128.7	128.7	125.7	0	+2.4
Boston					
Food	138.0	137.3	135.5	+0.5	+1.8
Housing[1]	103.5	103.5	103.5	0	0
Clothing	129.4	129.4	127.0	0	+1.9
Fuel and light	122.8	122.8	122.4	0	+0.3
Housefurnishings	126.4	125.8	122.5	+0.5	+3.2
Sundries	118.8	117.7	114.4	+0.9	+3.8
Weighted Total	124.2	123.8	122.0	+0.3	+1.8
Bridgeport					
Food	142.2	142.3	140.8	–0.1	+1.0
Housing[1]	106.5	106.5	106.5	0	0
Clothing	128.8	128.7	127.9	+0.1	+0.7
Fuel and light	120.0	120.0	118.9	0	+0.9
Housefurnishings	128.3	128.3	126.4	0	+1.5
Sundries	128.6	128.6	127.0	0	+1.3
Weighted Total	128.1	128.1	126.9	0	+0.9
Buffalo					
Food	145.4	144.1	145.6	+0.9	–0.1
Housing[1]	112.3	112.3	112.4	0	–0.1
Clothing	128.9	128.9	126.3	0	+2.1
Fuel and light	110.3	110.3	109.5	0	+0.7
Housefurnishings	129.6	129.6	127.6	0	+1.6
Sundries	126.2	126.2	124.3	0	+1.5
Weighted Total	128.9	128.5	128.0	+0.3	+0.7
Chattanooga					
Food	159.4	160.0	157.0	–0.4	+1.5
Housing[1]	103.6	103.6	103.3	0	+0.3
Clothing	124.4	124.1	119.5	+0.2	+4.1
Fuel and light	100.7	100.7	93.3	0	+7.9
Housefurnishings	124.8	124.8	121.5	0	+2.7
Sundries	117.4	117.0	115.3	+0.3	+1.8
Weighted Total	128.0	128.0	125.4	0	+2.1
Chicago					
Food	142.7	142.3	139.5	+0.3	+2.3
Housing[1]	105.8	105.8	105.8	0	0
Clothing	133.1	133.0	126.9	+0.1	+4.9
Fuel and light	98.9	98.9	98.9	0	0
Housefurnishings	125.8	125.8	124.9	0	+0.7
Sundries	118.2	118.0	115.9	+0.2	+2.0
Weighted Total	124.0	123.8	121.7	+0.2	+1.9
Cincinnati					
Food	137.5	138.8	137.8	–0.9	–0.2
Housing[1]	100.9	100.9	100.9	0	0
Clothing	138.9	138.4	133.6	+0.4	+4.0
Fuel and light	106.0	106.0	105.5	0	+0.5
Housefurnishings	125.1	125.1	124.4	0	+0.6
Sundries	116.6	116.6	114.6	0	+1.7
Weighted Total	123.2	123.5	122.1	–0.2	+0.9
Cleveland					
Food	139.2	139.2	136.5	0	+2.0
Housing[1]	109.7	109.7	109.7	0	0
Clothing	134.9	135.2	129.5	–0.2	+4.2
Fuel and light	106.3	106.3	104.5	0	+1.7
Housefurnishings	125.5	126.8	122.0	–1.0	+2.9
Sundries	128.7	128.6	118.7	+0.1	+8.4
Weighted Total	127.4	127.4	122.8	0	+3.7
Dallas					
Food	148.7	147.4	145.8	+0.9	+2.0
Housing[1]	105.6	105.6	105.6	0	0
Clothing	130.5	130.5	124.1	0	+5.2
Fuel and light	89.1	89.1	89.1	0	0
Housefurnishings	129.4	129.5	128.2	–0.1	+0.9
Sundries	121.5	121.6	118.3	–0.1	+2.7
Weighted Total	125.5	125.2	122.9	+0.2	+2.1
Dayton					
Food	145.2	143.5	143.8	+1.2	+1.0
Housing[1]	105.9	105.9	105.9	0	0
Clothing	124.3	125.4	122.7	–0.9	+1.3
Fuel and light	106.4	106.4	105.6	0	+0.8
Housefurnishings	133.4	133.4	127.8	0	+4.4
Sundries	122.6	122.6	116.8	0	+5.0
Weighted Total	126.2	125.8	123.6	+0.3	+2.1
Denver					
Food	143.4	143.6	147.1	–0.1	–2.5
Housing[1]	105.6	105.6	105.6	0	0
Clothing	131.8	131.7	127.3	+0.1	+3.5
Fuel and light	101.6	101.6	101.5	0	+0.1
Housefurnishings	126.9	126.4	124.8	+0.4	+1.7
Sundries	125.6	124.8	121.2	+0.6	+3.6
Weighted Total	126.8	126.6	126.0	+0.2	+0.6
Des Moines					
Food	138.6	139.1	138.8	–0.4	–0.1
Housing[1]	105.3	105.3	105.3	0	0
Clothing	136.5	135.3	131.4	+0.9	+3.9
Fuel and light	120.9	120.9	120.4	0	+0.4
Housefurnishings	125.7	125.7	123.8	0	+1.5
Sundries	120.7	120.6	117.3	+0.1	+2.9
Weighted Total	124.9	124.9	123.1	0	+1.5
Detroit					
Food	148.3	148.5	147.7	–0.1	+0.4
Housing[1]	107.0	107.0	107.0	0	0
Clothing	134.0	134.0	128.7	0	+4.1
Fuel and light	112.5	112.5	111.4	0	+1.0
Housefurnishings	126.2	126.2	124.4	0	+1.4
Sundries	129.2	129.2	124.1	0	+4.1
Weighted Total	129.8	129.8	127.4	0	+1.9

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[1] Rents surveyed quarterly, January 15, April 15, July 15, October 15.

rRevised.

COST OF LIVING IN 60 CITIES—Continued

Source: The Conference Board

Note: *These indexes do NOT show intercity differences in price level or standards of living. They show only changes in living costs in each city, which changes may be compared with those for other cities.*

City	Index Numbers Jan., 1939=100			Percentage Changes	
	Jan. 1945	Dec. 1944	Jan. 1944	Dec. 1944 to Jan. 1945	Jan. 1944 to Jan. 1945
Duluth					
Food	137.6	137.8	136.3	−0.1	+1.0
Housing[1]	100.2	100.2	100.2	0	0
Clothing	136.2	137.6	130.7	−1.0	+4.2
Fuel and light	107.5	107.5	106.2	0	+1.2
Housefurnishings	141.4	141.4*r*	135.8	0	+4.1
Sundries	120.4	118.0	115.8	+2.0	+4.0
Weighted Total	124.3	123.8*r*	121.6	+0.4	+2.2
Erie, Pa.					
Food	151.9	152.7	154.1	−0.5	−1.4
Housing[1]	110.1	110.0	109.9	+0.1	+0.2
Clothing	142.3	144.0	135.4	−1.2	+5.1
Fuel and light	113.0	113.0	112.7	0	+0.3
Housefurnishings	130.9	131.0	130.1	−0.1	+0.6
Sundries	127.3	127.2	124.0	+0.1	+2.7
Weighted Total	132.1	132.5	131.2	−0.3	+0.7
Fall River					
Food	137.2	138.1	134.8	−0.7	+1.8
Housing[1]	104.3	104.3	104.3	0	0
Clothing	135.2	135.2	131.3	0	+3.0
Fuel and light	116.9	117.0	116.1	−0.1	+0.7
Housefurnishings	119.8	119.8	114.3	0	+4.8
Sundries	126.9	126.8	121.9	+0.1	+4.1
Weighted Total	126.3	126.5	123.5	−0.2	+2.3
Front Royal, Va.					
Food	*n.a.*	162.4	160.1	*n.a.*	*n.a.*
Housing[1]	*n.a.*	107.3	107.3	*n.a.*	*n.a.*
Clothing	*n.a.*	146.6	140.5	*n.a.*	*n.a.*
Fuel and light	*n.a.*	112.2	111.4	*n.a.*	*n.a.*
Housefurnishings	*n.a.*	132.4	132.3	*n.a.*	*n.a.*
Sundries	*n.a.*	118.1	114.1	*n.a.*	*n.a.*
Weighted Total	*n.a.*	130.5	127.8	*n.a.*	*n.a.*
Grand Rapids					
Food	149.5	147.8	147.4	+1.2	+1.4
Housing[1]	106.5	106.5	106.5	0	0
Clothing	137.7	137.2	130.9	+0.4	+5.2
Fuel and light	111.5	111.5	110.5	0	+0.9
Housefurnishings	143.3	144.6	137.9	−0.9	+3.9
Sundries	126.4	126.4	123.8	0	+2.1
Weighted Total	130.6	130.1	128.1	+0.4	+2.0
Green Bay, Wis.					
Food	133.9	133.5	134.1	+0.3	−0.1
Housing[1]	102.8	102.8	100.4	0	+2.4
Clothing	137.5	135.8	129.1	+1.3	+6.5
Fuel and light	108.0	108.0	107.3	0	+0.7
Housefurnishings	127.1	126.3	124.0	+0.6	+2.5
Sundries	120.9	120.9	117.6	0	+2.8
Weighted Total	123.1	122.8	120.6	+0.2	+2.1
Houston					
Food	143.2	143.4	143.3	−0.1	−0.1
Housing[1]	105.7	105.7	105.7	0	0
Clothing	128.6	128.5	126.1	+0.1	+2.0
Fuel and light	84.8	84.8	84.8	0	0
Housefurnishings	120.2	120.7	116.6	−0.4	+3.1
Sundries	122.2	122.2	116.9	0	+4.5
Weighted Total	124.0	124.1	121.7	−0.1	+1.9
Huntington, W. Va.					
Food	149.0	149.1*r*	148.5	−0.1	+0.3
Housing[1]	111.7	111.7	111.7	0	0
Clothing	128.4	128.4	124.3	0	+3.3
Fuel and light	100.0	100.0	100.0	0	0
Housefurnishings	132.1	132.1	128.2	0	+3.0
Sundries	116.9	116.9	115.7	0	+1.0
Weighted Total	127.5	127.5*r*	126.2	0	+1.0
Indianapolis					
Food	147.8	148.6	143.9	−0.5	+2.7
Housing[1]	107.9	107.9	107.9	0	0
Clothing	127.5	127.1	124.1	+0.3	+2.7
Fuel and light	112.0	112.0	111.1	0	+0.8
Housefurnishings	125.8	125.6	124.7	+0.2	+0.9
Sundries	126.2	126.2	121.0	0	+4.3
Weighted Total	128.6	128.8	125.3	−0.2	+2.6
Kansas City, Mo.					
Food	134.2	134.5	134.2	−0.2	0
Housing[1]	105.5	105.5	105.2	0	+0.3
Clothing	132.1	131.7	126.0	+0.3	+4.8
Fuel and light	109.5	109.5	108.7	0	+0.7
Housefurnishings	123.1	123.0	121.2	+0.1	+1.6
Sundries	127.8	126.8	123.5	+0.8	+3.5
Weighted Total	125.0	124.7	122.8	+0.2	+1.8
Lansing					
Food	167.7	167.1	163.7	+0.4	+2.4
Housing[1]	98.0	98.0	98.0	0	0
Clothing	128.5	130.3	127.7	−1.4	+0.6
Fuel and light	105.3	105.3	104.4	0	+0.9
Housefurnishings	135.2	136.6	132.9	−1.0	+1.7
Sundries	129.8	129.7	124.4	+0.1	+4.3
Weighted Total	132.0	132.2	129.2	−0.2	+2.2
Los Angeles					
Food	151.2	152.0	147.8	−0.5	+2.3
Housing[1]	106.2	106.2	104.6	0	+1.5
Clothing	124.9	125.0	125.0	−0.1	−0.1
Fuel and light	93.4	93.4	93.4	0	0
Housefurnishings	120.7	120.8	120.4	−0.1	+0.2
Sundries	123.0	122.9	120.2	+0.1	+2.3
Weighted Total	127.3	127.5	125.0	−0.2	+1.8
Louisville					
Food	143.4	143.8	144.7	−0.3	−0.9
Housing[1]	103.9	103.9	103.9	0	0
Clothing	129.1	125.3	121.5	+3.0	+6.3
Fuel and light	113.4	113.4	112.9	0	+0.4
Housefurnishings	133.1	133.1	127.9	0	+4.1
Sundries	116.1	116.1	112.7	0	+3.0
Weighted Total	125.5	125.2	123.8	+0.2	+1.4
Macon					
Food	151.0	151.3	151.5	−0.2	−0.3
Housing[1]	113.9	114.2	115.9	−0.3	−1.7
Clothing	130.7	130.1	124.4	+0.5	+5.1
Fuel and light	101.9	101.7	100.1	+0.2	+1.8
Housefurnishings	135.2	137.0	133.8	−1.3	+1.0
Sundries	125.6	125.8	123.6	−0.2	+1.6
Weighted Total	131.9	132.1	130.4	−0.2	+1.2
Meadville, Pa.					
Food	144.5	144.6	145.5	−0.1	−0.7
Housing[1]	110.8	110.8	110.8	0	0
Clothing	120.5	120.5	117.7	0	+2.4
Fuel and light	112.1	112.1	112.1	0	0
Housefurnishings	135.1	135.0	132.6	+0.1	+1.9
Sundries	126.3	126.3	122.3	0	+3.3
Weighted Total	126.9	126.9	125.8	0	+0.9
Memphis					
Food	157.6	158.0	159.2	−0.3	−1.0
Housing[1]	108.4	108.4	109.4	0	−0.9
Clothing	136.6	136.7	130.7	−0.1	+4.5
Fuel and light	98.4	98.4	99.3	0	−0.9
Housefurnishings	128.1	128.1	128.6	0	−0.4
Sundries	114.3	114.3	112.2	0	+1.9
Weighted Total	127.5	127.6	126.9	−0.1	+0.5

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[1] Rents surveyed quarterly, January 15, April 15, July 15, October 15.

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n.a. Not available.

COST OF LIVING IN 60 CITIES—Continued

Source: The Conference Board

Note: *These indexes do NOT show intercity differences in price level of standards of living. They show only changes in living costs in each city, which changes may be compared with those for other cities.*

City	Index Numbers Jan., 1939=100			Percentage Changes	
	Jan. 1945	Dec. 1944	Jan. 1944	Dec. 1944 to Jan. 1945	Jan. 1944 to Jan. 1945
Milwaukee					
Food	142.8	144.2	139.3	−1.0	+2.5
Housing[1]	103.4	103.4	103.4	0	0
Clothing	138.6	136.2	132.6	+1.8	+4.5
Fuel and light	110.5	110.5*r*	109.1	0	+1.3
Housefurnishings	129.1	128.2	127.1	+0.7	+1.6
Sundries	122.7	122.6	119.1	+0.1	+3.0
Weighted Total	125.8	125.9	123.0	−0.1	+2.3
Minneapolis					
Food	149.9	151.2	147.8	−0.9	+1.4
Housing[1]	103.7	103.7	103.7	0	0
Clothing	135.4	135.1	132.0	+0.2	+2.6
Fuel and light	104.3	104.3	103.5	0	+0.8
Housefurnishings	124.7	124.4	122.0	+0.2	+2.2
Sundries	124.3	124.3*r*	119.4	0	+4.1
Weighted Total	127.7	128.0*r*	125.1	−0.2	+2.1
Muskegon					
Food	161.2	160.8	157.4	+0.2	+2.4
Housing[1]	115.2	115.2	115.2	0	0
Clothing	131.0	131.2	129.5	−0.2	+1.2
Fuel and light	115.5	114.6	114.6	+0.8	+0.8
Housefurnishings	121.9	121.9	120.2	0	+1.4
Sundries	121.5	121.5	117.3	0	+3.6
Weighted Total	132.0	131.8	129.4	+0.2	+2.0
Newark					
Food	140.1	139.2	145.2	+0.6	−3.5
Housing[1]	101.4	101.4	101.4	0	0
Clothing	128.2	127.9	124.8	+0.2	+2.7
Fuel and light	102.8	102.8	106.1	0	−3.1
Housefurnishings	134.1	134.2	130.6	−0.1	+2.7
Sundries	119.7	119.8	117.7	−0.1	+1.7
Weighted Total	124.1	123.8	125.2	+0.2	−0.9
New Haven					
Food	137.5	137.3	135.3	+0.1	+1.6
Housing[1]	105.3	105.3	105.3	0	0
Clothing	131.5	128.9	123.6	+2.0	+6.4
Fuel and light	111.9	111.9	111.0	0	+0.8
Housefurnishings	128.2	128.2	124.4	0	+3.1
Sundries	111.8	111.8	110.2	0	+1.5
Weighted Total	121.3	120.9	119.2	+0.3	+1.8
New Orleans					
Food	148.3	147.0	147.9	+0.9	+0.3
Housing[1]	110.5	110.5	110.6	0	−0.1
Clothing	133.5	133.4	131.2	+0.1	+1.8
Fuel and light	88.2	88.2	88.2	0	0
Housefurnishings	123.9	123.9	123.4	0	+0.4
Sundries	122.6	122.5	117.1	+0.1	+4.7
Weighted Total	129.7	129.2	127.8	+0.4	+1.5
New York					
Food	147.5	148.1*r*	147.8	−0.4	−0.2
Housing[1]	100.8	100.8	100.8	0	0
Clothing	119.5	119.4	117.4	+0.1	+1.8
Fuel and light	117.2	117.2	118.1	0	−0.8
Housefurnishings	132.7	131.2	130.0	+1.1	+2.1
Sundries	116.4	116.4	111.8	0	+4.1
Weighted Total	125.1	125.2	123.8	−0.1	+1.1
Omaha					
Food	148.9	148.2	145.9	+0.5	+2.1
Housing[1]	100.6	100.6	100.6	0	0
Clothing	128.8	128.7	124.1	+0.1	+3.8
Fuel and light	107.0	107.1	106.8	−0.1	+0.2
Housefurnishings	141.1	140.1	136.2	+0.7	+3.6
Sundries	123.2	123.3	119.2	−0.1	+3.4
Weighted Total	126.8	126.6	123.9	+0.2	+2.3
Parkersburg, W. Va.					
Food	144.7	144.2	144.6	+0.3	+0.1
Housing[1]	104.2	104.2	104.2	0	0
Clothing	125.1	125.4	124.1	−0.2	+0.8
Fuel and light	94.6	94.6	94.6	0	0
Housefurnishings	131.9	131.8	125.9	+0.1	+4.8
Sundries	120.2	117.5	114.5	+2.3	+5.0
Weighted Total	126.7	125.7	124.4	+0.8	+1.8
Philadelphia					
Food	139.8	140.5	140.8	−0.5	−0.7
Housing[1]	102.7	102.7	102.9	0	−0.2
Clothing	132.5	131.3	128.4	+0.9	+3.2
Fuel and light	110.4	110.4	109.5	0	+0.8
Housefurnishings	129.1	128.9	120.9	+0.2	+6.8
Sundries	125.4	125.4	115.3	0	+8.8
Weighted Total	126.8	126.9	123.7	−0.1	+2.5
Pittsburgh					
Food	141.9	142.6	140.6	−0.5	+0.9
Housing[1]	105.7	105.7	105.7	0	0
Clothing	130.6	130.6	127.4	0	+2.5
Fuel and light	110.3	110.3	111.4	0	−1.0
Housefurnishings	119.7	119.7	117.9	0	+1.5
Sundries	120.3	120.3	117.5	0	+2.4
Weighted Total	125.0	125.2	123.5	−0.2	+1.2
Portland, Ore.					
Food	144.9	146.7	143.8	−1.2	+0.8
Housing[1]	110.0	110.0	110.0	0	0
Clothing	141.2	141.2	135.6	0	+4.1
Fuel and light	124.9	124.9	124.9	0	0
Housefurnishings	123.9	124.1	119.8	−0.2	+3.4
Sundries	117.0	117.0	114.9	0	+1.8
Weighted Total	127.8	128.3	125.9	−0.4	+1.5
Providence					
Food	144.2	143.7	139.7	+0.3	+3.2
Housing[1]	103.3	103.3	103.3	0	0
Clothing	134.3	134.1	130.1	+0.1	+3.2
Fuel and light	114.2	114.2*r*	114.7	0	−0.4
Housefurnishings	126.2	126.2	126.2	0	0
Sundries	121.3	121.3	118.8	0	+2.1
Weighted Total	125.9	125.7*r*	123.4	+0.2	+2.0
Richmond					
Food	160.7	160.0	156.5	+0.4	+2.7
Housing[1]	103.1	103.1	103.1	0	0
Clothing	131.3	131.2	128.9	+0.1	+1.9
Fuel and light	104.8	104.8	105.0	0	−0.2
Housefurnishings	121.2	121.2	121.2	0	0
Sundries	117.2	117.2	115.5	0	+1.5
Weighted Total	128.3	128.1	126.3	+0.2	+1.6
Roanoke, Va.					
Food	151.2	152.2	152.9	−0.7	−1.1
Housing[1]	121.6	120.3	119.2	+1.1	+2.0
Clothing	133.0	132.9	131.3	+0.1	+1.3
Fuel and light	107.9	107.9	107.3	0	+0.6
Housefurnishings	122.4	123.8	121.9	−1.1	+0.4
Sundries	123.0	123.0	118.5	0	+3.8
Weighted Total	131.1	131.2	129.5	−0.1	+1.2
Rochester					
Food	147.0	147.0	147.4	0	−0.3
Housing[1]	103.9	103.9	103.9	0	0
Clothing	130.6	130.4	130.0	+0.2	+0.5
Fuel and light	117.9	117.9	113.4	0	+4.0
Housefurnishings	135.5	135.5	135.7	0	−0.1
Sundries	129.2	129.1	125.2	+0.1	+3.2
Weighted Total	128.4	128.3	127.0	+0.1	+1.1

[1] Rents surveyed quarterly, January 15, April 15, July 15, October 15.

r Revised.

COST OF LIVING IN 60 CITIES—Continued

Source: THE CONFERENCE BOARD

NOTE: *These indexes do NOT show intercity differences in price level or standards of living. They show only changes in living costs in each city, which changes may be compared with those for other cities.*

CITY	Index Numbers Jan., 1939=100			Percentage Changes	
	Jan. 1945	Dec. 1944	Jan. 1944	Dec. 1944 to Jan. 1945	Jan. 1944 to Jan. 1945
Rockford, Ill.					
Food	145.6	145.3	143.5	+0.2	+1.5
Housing[1]	138.1	138.1	138.0	0	+0.1
Clothing	128.9	128.8	124.4	+0.1	+3.6
Fuel and light	113.8	113.6	113.1	+0.2	+0.6
Housefurnishings	131.3	131.3	131.3	0	0
Sundries	122.3	122.1r	118.1	+0.2	+3.6
Weighted Total	132.7	132.5	130.4	+0.2	+1.8
Sacramento					
Food	146.3	146.1	146.5	+0.1	-0.1
Housing[1]	104.1	104.1	104.1	0	0
Clothing	140.1	139.5	131.8	+0.4	+6.3
Fuel and light	80.8	80.8	80.8	0	0
Housefurnishings	142.3	142.2	142.8	+0.1	-0.4
Sundries	123.1	123.1	119.1	0	+3.4
Weighted Total	127.3	127.1	125.2	+0.2	+1.7
St. Louis					
Food	145.2	145.3	148.0	-0.1	-1.9
Housing[1]	105.8	105.8	106.0	0	-0.2
Clothing	129.2	129.2	124.9	0	+3.4
Fuel and light	115.5	115.5	114.0	0	+1.3
Housefurnishings	118.7	118.7	118.3	0	+0.3
Sundries	117.7	117.1	113.5	+0.5	+3.7
Weighted Total	125.8	125.7	125.0	+0.1	+0.6
St. Paul					
Food	142.4	143.0	141.9	-0.4	+0.4
Housing[1]	100.9	100.9	100.9	0	0
Clothing	125.1	124.8	122.1	+0.2	+2.5
Fuel and light	106.6	106.6	105.6	0	+0.9
Housefurnishings	126.4	125.8	126.2	+0.5	+0.2
Sundries	122.4	122.4	119.2	0	+2.7
Weighted Total	123.7	123.8	122.2	-0.1	+1.2
San Francisco - Oakland					
Food	145.3	147.2	146.7	-1.3	-1.0
Housing[1]	100.9	100.9	100.9	0	0
Clothing	135.4	134.5	129.3	+0.7	+4.7
Fuel and light	89.8	89.8	89.2	0	+0.7
Housefurnishings	124.1	123.9	119.5	+0.2	+3.8
Sundries	123.5	123.5	116.7	0	+5.8
Weighted Total	126.8	127.3	124.2	-0.4	+2.1
Seattle					
Food	150.3	152.6	149.1	-1.5	+0.8
Housing[1]	106.5	106.5	106.5	0	0
Clothing	128.4	128.5	126.7	-0.1	+1.3
Fuel and light	108.8	108.7	110.7	+0.1	-1.7
Housefurnishings	121.1	120.9	120.2	+0.2	+0.7
Sundries	121.2	121.3	118.7	-0.1	+2.1
Weighted Total	128.0	128.8	126.8	-0.6	+0.9

CITY	Index Numbers Jan., 1939=100			Percentage Changes	
	Jan. 1945	Dec. 1944	Jan. 1944	Dec. 1944 to Jan. 1945	Jan. 1944 to Jan. 1945
Spokane					
Food	141.4	143.2	141.6	-1.3	-0.1
Housing[1]	102.0	102.0	102.0	0	0
Clothing	124.3	124.3	123.1	0	+1.0
Fuel and light	133.9	133.9	133.8	0	+0.1
Housefurnishings	132.9	132.9	132.7	0	+0.2
Sundries	120.0	119.6	116.1	+0.3	+3.4
Weighted Total	126.4	126.9	125.2	-0.4	+1.0
Syracuse					
Food	142.7	142.8	142.5	-0.1	+0.1
Housing[1]	116.2	116.2	116.2	0	0
Clothing	132.1	133.0	130.3	-0.7	+1.4
Fuel and light	114.4	114.2	113.9	+0.2	+0.4
Housefurnishings	130.6	130.6	130.0	0	+0.5
Sundries	120.0	120.1	117.2	-0.1	+2.4
Weighted Total	127.0	127.2	125.9	-0.2	+0.9
Toledo					
Food	144.7	145.2	141.8	-0.3	+2.0
Housing[1]	113.0	113.0	109.0	0	+3.7
Clothing	130.4	131.9	124.2	-1.1	+5.0
Fuel and light	107.6	107.6	107.5	0	+0.1
Housefurnishings	123.4	122.6	123.0	+0.7	+0.3
Sundries	128.7	128.7	118.3	0	+8.8
Weighted Total	129.2	129.5	123.9	-0.2	+4.3
Wausau, Wis.					
Food	151.5	152.3	150.7	-0.5	+0.5
Housing[1]	102.7	102.7	102.7	0	0
Clothing	138.6	137.9	129.8	+0.5	+6.8
Fuel and light	109.3	109.5	108.6	-0.2	+0.6
Housefurnishings	125.7	125.7	125.7	0	0
Sundries	117.1	117.1	114.7	0	+2.1
Weighted Total	126.6	126.8	124.6	-0.2	+1.6
Wilmington, Del.					
Food	141.9	142.2	142.6	-0.2	-0.5
Housing[1]	104.5	104.6	104.6	-0.1	-0.1
Clothing	131.9	132.2	129.7	-0.2	+1.7
Fuel and light	104.8	104.8	105.5	0	-0.7
Housefurnishings	124.2	124.2	120.5	0	+3.1
Sundries	116.1	116.7r	115.2	-0.5	+0.8
Weighted Total	125.0	125.3r	124.6	-0.2	+0.3
Youngstown					
Food	155.7	153.9	150.7	+1.2	+3.3
Housing[1]	105.6	105.6	105.6	0	0
Clothing	143.7	142.3	134.5	+1.0	+6.8
Fuel and light	106.7	106.7	107.0	0	-0.3
Housefurnishings	143.6	143.4	134.6	+0.1	+6.7
Sundries	116.8	116.8	113.4	0	+3.0
Weighted Total	130.3	129.6	126.4	+0.5	+3.1

[1] Rents surveyed quarterly, January 15, April 15, July 15, October 15.

r Revised.

PERCENTAGE CHANGES, COST OF LIVING IN 4 CITIES

CITY	Dec. 1944 to Jan. 1945	Jan. 1944 to Jan. 1945
Evansville, Ind.		
Food	+0.1	+0.8
Housing[1]	0	0
Clothing	+2.1	+3.5
Fuel and light	0	+0.2
Housefurnishings	+0.3	+2.5
Sundries	+0.1	+8.4
Weighted Total	+0.3	+3.5
Joliet, Ill.[2]		
Food	+0.5	+2.2
Housing[1]	0	0
Clothing	-0.1	+4.4
Fuel and light	+0.6	+2.1
Housefurnishings	0	+2.2
Sundries	-0.1	+2.2
Weighted Total	+0.1	+2.1
Lewistown, Pa.		
Food	+0.8	+0.3
Housing[1]	0	0
Clothing	+0.1	+7.8
Fuel and light	0	+3.4
Housefurnishings	0	+0.6
Sundries	0	+2.5
Weighted Total	+0.3	+1.8
Trenton, N. J.		
Food	-0.9	-0.4
Housing[1]	0	+0.3
Clothing	+1.5	+6.2
Fuel and light	0	-3.1
Housefurnishings	-0.5	+1.8
Sundries	-0.2	+12.4
Weighted Total	-0.2	+3.5

[1] Rents surveyed quarterly, January 15, April 15, July 15, October 15.

[2] Includes Lockport and Rockdale.

Strikes and Turnover Rates

THE NUMBER of strikes started in 1944 was the highest on record since the beginning of the series in 1881. Preliminary estimates place the number at 5,005, a figure that surpasses by 12.5% the former high record of 4,450 in 1917.

The number of workers involved was only slightly below last year's total. There were 1,965,000 workers idle during 1944, or an average of 163,750 a month. This compares with 1,981,000 persons idle during last year, or 165,000 each month.

Man days idle during 1944 amounted to 8,225,000, or 39.1% fewer than the 13,501,000 in 1943. It was, however, almost double the number lost in 1942, the first year following Pearl Harbor. Man days lost in 1944 would be equivalent to approximately 22,500 workers being idle each day during the year.

It is impossible to determine exactly what these totals mean in the way of lost production for the war effort. The actual amount of lost time that can be accounted for does not take into consideration the time lost by workers who depended on the parts which were not available as a result of the strike. This interdependence of work operations can cause a tremendous chain of lost time. During wartime, it is of even greater importance since timing is a prime factor.

The annual totals for 1944 are obtained by adding together the preliminary releases for each month, as shown in the accompanying table. The preliminary annual totals released by the Bureau of Labor Statistics are 5,000 strikes and lockouts, involving 2,100,000 workers and causing 8,500,000 man days of idleness. They report the time lost in 1944 as 0.10% of available working time as compared with 0.15% in 1943.

The December figures for all three series show declines from the previous month as well as over the year. The number of strikes was 280, the lowest since September, 1943. This was a decline of 25.3% from November and 21.1% since a year ago. The number of workers involved was 85,000, the lowest since September, 1943. The decrease from November was 57.5%; for the year period it was 67.7%. Man days idle were the lowest since September, 1943, representing a decline from November of 46.5%, and 51.7% over the year.

STRIKES, TURNOVER RATES AND PRODUCTION

Date	All Occupations			Manufacturing						
	Strikes[1]			Production[2] (1935–1939 =100)	Turnover Rate per 100 Employees[1]					
	Beginning in Period		Man Days Idle During Period (Thousand)		Separations[3]					Accessions[7]
	Number	Workers Involved (Thousand)			Total	Quits[4]	Miscellaneous[4]	Discharges[5]	Layoffs[6]	
1930	637	183	3,317	90	59.65	18.64		5.04	35.97	37.02
1931	810	342	6,893	74	48.38	11.39		2.72	34.27	36.59
1932	841	324	10,502	57	51.98	8.34		1.96	41.68	39.82
1933	1,695	1,168	16,872	68	45.38	10.66		2.49	32.23	65.20
1934	1,856	1,467	19,592	74	49.17	10.67		2.24	36.26	56.91
1935	2,014	1,117	15,456	87	42.74	10.37		2.29	30.08	50.05
1936	2,172	789	13,902	104	40.35	13.02		2.63	24.70	52.16
1937	4,740	1,861	28,425	113	53.11	14.97		2.38	35.76	42.59
1938	2,772	688	9,148	87	49.22	7.46		1.29	40.47	46.16
1939	2,613	1,171	17,812	109	37.71	9.52		1.52	26.67	48.85
1940	2,508	577	6,701	126	40.27	10.93	1.61	1.84	25.89	52.72
1941	4,288	2,363	23,048	168	46.68	23.63	4.15	3.04	15.86	64.51
1942	2,968	840	4,183	212	77.66	45.09	15.04	4.66	12.87	91.62
1943*a*	3,752	1,981	13,501	258	86.86	62.11	10.56	7.12	7.07	89.64
1944	*p*5,005	*p*1,965	*p*8,225	252	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*
1943 November	325	136	2,863	268	6.4	4.5	.6	.6	.7	6.6
December	355	263	787	258	6.6	4.4	.6	.6	1.0	5.2
1944 January	330	110	625	259	6.7	4.6	.6	.7	.8	6.5
February	330	115	470	259	6.6	4.6	.6	.6	.8	5.5
March	360	115	415	257	7.4	5.0	.8	.7	.9	5.8
April	435	155	580	255	6.8	4.9	.7	.6	.6	5.5
May	610	290	1,400	252	7.1	5.3	.7	.6	.5	6.4
June	500	155	680	252	7.1	5.4	.5	.7	.5	7.6
July	470	145	680	248	6.6	5.0	.4	.7	.5	6.3
August	485	190	935	251	7.8	6.2	.4	.7	.5	6.3
September	390	185	660	249	7.6	6.1	.3	.6	.6	6.1
October	440	220	690	250	6.4	5.0	.3	.6	.5	6.0
November	375	200	710	*r*248	*p*6.0	*p*4.5	*p*.3	*p*.6	*p*.6	*p*5.9
December	*p*280	*p* 85	*p*380	*p*247	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*	*n.a.*

NOTE: For back figures, see *The Conference Board Management Record*, June, 1944, p. 170.

[1] United States Bureau of Labor Statistics.

[2] Federal Reserve annual production data are averages of monthly figures.

[3] A separation is a termination of employment of any of the following kinds: quit, layoff, discharge, or miscellaneous. Transfers from one plant to another of the same company are not considered as accessions or separations.

[4] A quit is a termination of employment, generally initiated by the worker because of his desire to leave, but sometimes due to his physical incapacity. Beginning with January, 1940, separate rates were computed for miscellaneous separations; *i. e.*, separations due to death, permanent disability, retirements on pensions, and similar reasons. Beginning with September, 1940, workers leaving to enter the Army or Navy were included in miscellaneous separations.

[5] A discharge is a termination of employment at the will of the employer, with prejudice to the worker because of some fault on the part of the worker.

[6] A layoff is a termination of employment at the will of the employer, without prejudice to the worker and of a temporary, indeterminate, or permanent nature. However, a short, definite layoff with the name of the worker remaining on the payroll is not counted as a separation.

[7] An accession is the hiring of a new employee or the rehiring of an old employee. Transfers from one plant to another of the same company are not considered as accessions or separations.

*a*Data on turnover rates since January, 1943, are not strictly comparable with previously released data. The rates now refer to all employees rather than wage earners only.

*p*Preliminary *n.a.*Not available. *r*Revised.

LABOR DISPUTES ORIGINATING IN JANUARY, 1945

Incomplete report based on information appearing in the press

Organization Affected	Union	Location	Date Begun	Date Ended	Number of Workers Affected
Manufacturing, Building, and Mining					
Bendix Aviation Corporation[1]	*n.a.*	Detroit, Mich.	1/5	1/5	230
Bonny Blue Mines	*n.a.*	St. Charles, Va.	4	6	600
Briggs Manufacturing Company[2]	CIO	Detroit, Mich.	20	22	813
Buick Motor Company[3]	CIO	Flint, Mich.	12	..	470
Chrysler Corporation[4]	CIO	Detroit, Mich.	5	..	60
Chrysler Corporation[5]	CIO	Detroit, Mich.	31	..	1,265
Fairchild Engine & Airplane Corporation[6]	CIO	Jamaica and Farmingdale, N. Y.	16	17	3,000
Ford Motor Company	CIO	Detroit, Mich.	25	..	488[a]
General Steel Castings Corporation	CIO	Granite City, Ill.	31	2/2	2,000[b]
Gottfried Baking Company	AFL	New York, N. Y.	8	..	290
Loose-Wiles Biscuit Company	CIO	Long Island City, N.Y.	18	1/19	*n.a.*
McQuay–Norris Mfg. Company	CIO	St. Louis, Mo.	13	15	88
Motor Wheel Corporation[7]	*n.a.*	Lansing, Mich.	20	22	*n.a.*
Pittsburgh Equitable Meter Company[8]	CIO	Homewood, Pa.	1	10	1,200
Rubberset Company	AFL	Newark, N. J.	4	11	400
Shell Oil Company[9]	Ind.	St. Louis, Mo.	27	..	115
Snyder Tool & Engineering Company	Ind.	Detroit, Mich.	3	8	180
Snyder Tool & Engineering Company	Ind.	Detroit, Mich.	8	10	180
Todd Shipyards Corporation[10]	AFL	Hoboken, N. J.	9	9	800
United Brass & Aluminum Mfg. Company	AFL	Port Huron, Mich.	8	..	*n.a.*
Westinghouse Naval Ordnance Arsenal	CIO	Detroit, Mich.	18	18	600
Gar Wood Industries, Inc	CIO	Detroit, Mich.	8	9	1,000
Miscellaneous					
Cleveland Electric Illuminating Company[11]	CIO	Cleveland, Ohio	12	13	400
Penn Transit Company[12]	*n.a.*	McKeesport, Pa.	6	6	*n.a.*

[1] Zenith Carburetor Division.

[2] Verner Highway plant.

[3] Aluminum foundry plant.

[4] Receiving department employees at Dodge Main Division.

[5] Strike of 165 cutter grinders and assemblymen at the Chrysler Tank Arsenal caused 1,100 day-force employees to be sent home.

[6] Ranger Aircraft Engines Division.

[7] No. 2 plant.

[8] Two plants affected.

[9] Boilermakers at the Wood River refinery.

[10] Electricians.

[11] Coal passers and maintenance men.

[12] Bus drivers.

[a] Strike of 175 employees in the wing-spar department of the Willow Run Bomber plant forced the company to send home 313 workers from the heat treat department because of a shortage of parts.

[b] Strike of 500 to 600 chippers and chainmen at the Commonwealth Division made more than 1,500 others idle.

The low figures for both September, 1943, and December, 1944, were no doubt the result of scares thrown into the working populace by "work or fight" announcements.

On August 14, 1943, new deferment regulations were issued and on August 29 a large-scale shift in jobs was demanded by Manpower Commission Chairman McNutt. In December, 1944, much publicity was given to legislation pending on various phases of the work-or-fight problem. The workers' concern was reflected in the lessening of strike activity. It seems possible that the announcement in January of further revisions in deferment regulations was effective in again reducing strike disturbances, since THE CONFERENCE BOARD's tabulation for January of strike information appearing in the press is the smallest it has been for many months.

TURNOVER RATES

Both total separations and total accessions decreased from October to November, with the accession rate remaining below the separation rate. Quits declined, layoffs increased and miscellaneous separations and discharges remained the same. Absenteeism was the principal reason given for discharge.

The total separation rate in November for the metal-mining industry was 5.5 per 100 employees as compared with 6.0 in October, while the accession rates were 4.0 and 3.6, respectively, for the same periods. Other nonmanufacturing industry separation rates in November were anthracite mining, 1.8; bituminous coal mining, 3.6; telephone, 2.5; and telegraph, 3.0. The corresponding accession rates were 1.2, 3.4, 2.5, and 3.1.

MARY A. WERTZ
Division of Labor Statistics

Personnel Practices

Homes for the Homeless

A full-time housing worker is helping employees find comfortable homes near the Western Pipe & Steel Company in San Francisco, California, as a result of a labor-management committee report that such a service would improve production.

Learning through Observation

As part of its sales training program, a large department store some time ago started a program which involved sending each salesclerk twice a year to "shop" in competing stores. The salesclerk is armed on each shopping expedition with the same type of shopping report which the store's shoppers use in describing the transactions of its own clerks.

On the day after the shopping trip, the salesclerks meet in conferences attended by six or eight salespeople. The floor superintendent presides at the conference while the salesclerks describe their shopping experiences and criticize all phases of the transactions. Experience with this procedure indicates that it is one of the most effective methods of developing customer-minded attitudes and improved selling techniques.

Dinner for New Employees

As a fitting close to its induction program, the Standard Register Company of Dayton, Ohio, gives a semi-annual dinner attended by all new employees who have been hired during the previous six months, at which they are given an opportunity to meet with supervisory and executive personnel. At one of the recent new employee dinners, members of the company's 25-year club were also guests.

Social Security Recommendations

With the approach of legislative sessions in forty-four states in 1945, the Social Security Board has developed recommendations for possible legislative action in the states. Its recommendations on unemployment compensation are digested as follows:

1. Extension of coverage, particularly to employees in establishments having as few as one employee.

2. Lengthening the duration of benefits to twenty-six weeks.

3. Increase of the maximum weekly benefit to $25 to reflect the general rise in weekly wages.

4. Elimination of unduly restrictive disqualification provisions in order that they may not continue to nullify the purpose of the program which is to compensate for involuntary unemployment.

Sick-leave Provisions

In recent years organized labor has attempted to obtain provisions for sick leave with pay in agreements negotiated with employers. The number of such provisions is still very small but they have been appearing more frequently in recent years.

In California a labor questionnaire was completed in 1943 by 1,621 union locals. Of this number 1,195 reported that they had collective-bargaining agreements with employers. Eighty-six out of the 1,195 reported that one or more of their contracts included sick-leave-with-pay provisions. The most common plan reported is of the uniform type in which a fixed number of days of sick leave are permitted after a specified minimum term of employment. Forty-one of the sixty-six plans which were reported in detail are of this type. The remaining plans have sick benefits graduated by length of service.

The amount of sick-leave allowance per year in thirty-nine of the forty-one uniform plans reported is as follows:

Number of Plans	Annual Sick Leave
2	3 days
11	5 days
5	6 days
3	1 week
1	56 hours
5	10 days
2	12 days
5	2 weeks
4	15 days
1	4 weeks

Of the twenty-five union locals reporting plans with graduated sick leave with pay, fifteen locals, all affiliates of the same international union, include a plan in their agreement which allows six days' sick leave after one year of service, nine days' after two years of employment and a maximum of twelve days' after three years. This plan specifies that sick leave with pay will be granted only on the condition that "work is kept up at no additional expense to the company." The provisions of the remainder of the graduated plans were all different. The minimum ranged from five days' sick leave to two weeks' and the maximum from ten days' to sixty days' sick leave.

50-Year Suggestion System

In 1894, John H. Patterson, one of the founders of the National Cash Register Company, inaugurated a suggestion system whereby employees at the plant in Dayton, Ohio, might contribute their ideas on how to improve working conditions and efficiency. On the basis of this beginning the company lays claim to having installed the first formal employee suggestion system in the United States.

The fiftieth anniversary of the plan at the National Cash Register Company was celebrated with special ceremonies at the labor-management meeting on October 12. Suggestion awards totaling $4,833 in war bonds and stamps were paid for ideas adopted during a period of four months, the top award being $1,500.

During the past fifty years approximate 300,000 suggestions have been made by employees and over 75,000 (25%) have been adopted.

Employment in December

EMPLOYMENT in December, 1944, dropped roughly a million and was 1.5% less than in November. The number at work or in military service totaled 62.4 million and was only fractionally higher than a year ago. As in past years, the largest decrease for the month was registered in agriculture. Bad weather conditions, however, accentuated the normal seasonal decline and brought December farm employment to the lowest point in twenty years.

Difficulty in recruiting miners contributed to the decline in minerals employment. The December decrease continued the downward movement which has persisted since the war's beginning. More than 12,000 additional mine workers are urgently needed now and the industry is listed as critical by the War Manpower Commission.

Employment and Unemployment, December, 1942–December, 1944[1]

In Thousands

Distribution of Labor Force and Employment	1944 December[1]	1944 November[1]	1944 October	1943 December	1942 December
Unemployment	....	....	....	....	....
Excess of employment over economic labor force	5,962	6,948	8,212	6,395	3,192
Total employment	62,375	63,317	64,540	62,297	58,577
Agriculture	8,671	10,014	11,265	8,861	8,861
Forestry and fishing	160	170	179	173	190
Total industry	21,047	21,052	21,162	22,115	22,314
Extraction of minerals	610	615	620	677	749
Manufacturing	15,009	14,945	15,057	16,339	15,760
Construction	1,372	1,443	1,463	1,406	2,468
Transportation	3,115	3,110	3,083	2,672	2,310
Public utilities	940	939	939	1,020	1,026
Trade, distribution and finance	7,978	7,655	7,537	7,915	7,961
Service industries (including Armed Forces)	23,059	22,978	22,950	21,782	17,901
Miscellaneous industries and services	1,459	1,448	1,447	1,452	1,350

[1] Subject to revision.

Employment in manufacturing increased slightly in December, reversing the trend for the year. These gains were concentrated in industries where war production has increased. The War Manpower Commission, however, holds that although war-plant employment increased in December, manpower shortages continue acute. Industries which are critical require more than 200,000 workers in various labor market areas.

Trade, distribution and finance continued the upward movement begun in September of this year, even after adjustment for seasonal expansion. Employment in the service industries continued to reflect military inductions and was 0.4% above November.

LILLIAN EISENBERG
Division of Business Statistics

Management Book Shelf

The Dynamics of Time Study. *By Ralph Presgrave. University of Toronto Press. Toronto 1, Canada: Ambassador Books, Ltd.* $3.50.

Sincere efforts are being made by many companies to clarify, in the worker's mind, the purpose of time study and motion study and the nature of the techniques involved. If there were more general agreement among time-study engineers on the techniques used then these educational programs might be greatly enhanced. This book is a contribution in that direction.

Years of experience in the direct application of time-study technique, together with experience as a leading industrial consultant and manufacturing executive in Canada, have given the author a background which qualifies him to discuss techniques objectively.

Supplementing previous, widely accepted textbooks on this subject, Mr. Presgrave describes the major problems of time-study as three-fold: (1) those dealing with the study proper; that is, manipulating and reading the stop-watch and related techniques; (2) appraisal of the method used by the worker on the operation; and (3) determination of the degree of effort expended by the worker. Most of the book directs its attention to the third problem, four chapters being directly concerned with the subject of effort rating. The only section that deals with the mechanics of the time-study itself is the chapter in which the long-standing controversy about the snap-back *versus* the continuous method of recording stop-watch readings is discussed.

This book constitutes a philosophy on time study. Technicians and executives having a close interest in the subject will find it an excellent guide to a constructive review and critical analysis of the practices they are following. E. S. H.

Conference Leader Training. *By Edward S. Maclin and Paul T. McHenry. Deep River, Connecticut: National Foremen's Institute.* $2.50

This 74-page cloth-bound book effectively presents the elementary principles and practices followed by successful conference leaders. The subject matter is well organized and the suggested procedures are concisely set forth in a clear and interesting manner.

As the authors recognize, no book or outline can teach an unskilled person how to be a good conference leader. One learns how to lead conferences by leading conferences after achieving a thorough understanding of sound and proven conference-leading techniques. The important point for the newly assigned conference leader to recognize is that he must assume most of the responsibility himself for his development. In many cases, the novice may get the most benefit from first scanning a large number of well-organized and briefly stated ideas and then returning to the beginning for the purpose of devoting a considerable amount of thought and attention to each idea. Would-be conference leaders who use this short book in this manner will find it a valuable conference leader training instrument. S. A. R.

Industrial Readjustments. *Proceedings of the Fifth Southern California Management Conference. Pasadena 4, California: California Institute of Technology.* $1.00.

The Southern California Management Council is composed of twenty-two societies, colleges, associations and other organizations interested in modern management practices, including the Foremen's Club of Los Angeles, Los Angeles and San Diego Chapters of the Society for the Advancement of Management, and the Purchasing Agents Association of Los Angeles. The conference, held at the University of Southern California on May 6, 1944, was attended by about 800 persons. The twenty-three papers submitted by participants cover a wide range of subjects, including postwar wages, work simplification, manpower problems, contract termination, reconversion and retooling.

Four representative chapters are: "How Jahco Achieves Production," by William Jack, President, Jack and Heintz, Inc.; "Cost Control Fundamentals," by Verne Breitenbucher, Lockheed Aircraft Corporation; "The Postwar Wage Problem," by Robert D. Gray, California Institute of Technology; "The Problem of Rating Employees," by John Frost, Douglas Aircraft Company. E. S. H.

Soldier to Civilian. Problems of Readjustment. *By George K. Pratt, M.D. New York: Whittlesey House, McGraw-Hill Book Company.* $2.50.

While reminding us of our tremendous responsibilities in the readjustment of veterans to normal civilian life, the author gives the reader common-sense advice and practical suggestions for handling many of the problems which will confront us in the postwar adjustment period.

Case histories are used to illustrate and explain certain human reactions. Dr. Pratt points out means and methods by which we may assist exservicemen in finding their own special niches in life.

Special attention is given to veterans with physical and psychiatric handicaps. The author points out the need for analyzing situations which tend to aggravate or intensify symptoms of maladjustment.

The appendix, "Community Services to Veterans," contains advice which will be useful to persons responsible for the formulation of community services for veterans.

Personnel people will find this book an invaluable guide in interpreting veteran attitudes. E. M. S.

Labour in New Zealand. *By A. E. C. Hare. Wellington, New Zealand: Victoria University College.*

"If . . . employers and workers can be led to a dispassionate consideration of their problems, . . . a great step forward will have been achieved; moreover, on questions of industrial relations the influence of general public opinion is considerable and anything contributed towards the growth of a well-informed and educated public attitude will be richly repaid in the long run." This opening comment of the report relates to industrial relations problems "down under," but it might be applied right here at home to a greater extent than heretofore.

Problems of the community are presented in relation to industrial relations in key industries. Production problems as tackled by industry and labor are analyzed, along with attitudes toward social security legislation and arbitration of labor disputes in New Zealand. A. A. D.

Reading Notes

Silver Bay Industrial Conference Proceedings—1944. *New York: the National Council of the Young Men's Christian Associations, 347 Madison Avenue.*

Colonel Herman W. Steinkraus, President of Bridgeport Brass Company, makes a statement on "The Industrial Relations Problems We Face Today." Lee H. Hill, Vice President of Allis-Chalmers Manufacturing Company, contributes "Managements Rights and How to Retain Them." Walter J. Couper of Industrial Relations Counselors, and George C. Wigle, Director of Training of the Arma Corporation, Brooklyn, analyze "Industry's Responsibility for Refitting Veterans to Jobs."

The point of view of organized labor is revealingly presented by R. J. Thomas, International President of the United Automobile Workers, in "Labor's Postwar Wants and Obligations." Another worth-while article is by T. O. Armstrong, Manager of Industrial Relations, Westinghouse Electric and Manufacturing Company, Springfield, Massachusetts, on "Authority and Responsibility of Line and Staff Administration." A.A.D.

Railway Wage-rates, Employment and Pay. *By John L. McDongall. New York: Longmans Green and Company.* 50c.

On the assumption that "union members have an economic interest in employment and in their earnings from it," the author of this booklet attempts to indicate in a statistical fashion the problems of wage rates and employment among railway employees in Great Britain, Canada and the United States. He has made a fine contribution. A.A.D.

"Orientation of Office Employees," by W. H. Hargreaves, *Executives' Service Bulletin*, November, 1944. Describes in detail the induction and orientation procedures of the Underwood Elliott Fisher Company as applied to office employees and contains a soundly conceived discussion of the meaning of orientation and its importance to employee morale.

"Informational Conferences for Foremen," by R. J. Greenly, *Factory Management and Maintenance*, December, 1944. A well-written article describing in detail the method used by Carnegie Steel Corporation in reaching the first-line supervisory staff, as well as the upper levels of supervision, with policy and operational information.

"Report on the 'Classification Inventory,' a Personality Test for Industrial Use," by Clifford E. Jurgensen, *Journal of Applied Psychology*, December, 1944. Describes a new personality test (upon which research is still being conducted) designed to be scored and validated on *jobs* rather than *personality traits*. S.A.R.

"A Good Place to Work," by Roy Rutherford, *Nation's Business*, December, 1944. How to apply a sound labor relations program from a human interest point of view. Instances are given of companies which have retained their personnel through the "manpower crises." A partial answer to the problems associated with better management-labor relationships today and in the postwar period. A.A.D.

American Federationist, official AFL monthly publication, January, 1945. A Colorado statute relating to incorporation of trade unions has been declared unconstitutional by the Colorado Supreme Court. Joseph A. Padway, General Counsel for the AFL, analyzes the statute and the court decision . . . Mark Starr, Educational Director of the International Ladies' Garment Workers Union, in "Higher Education for Labor Leadership" quotes Dr. Ernest O. Melby, President of Montana State University, that "the public pays for educating doctors and lawyers. Why shouldn't the public also pay for the education of labor leaders?" Mr. Starr is a recognized authority on workers' education in labor unions and his point of view is worth having . . . Edward H. Scheiberling, National Commander of the American Legion, indicates his organization's attitude toward labor in "The Legion and Labor." A.A.D.

"Training for Domestic Gas Service," *American Gas Association Monthly*, January, 1945. Explains why previous methods of training major appliance service men proved less effective than the present method which consists almost entirely of classroom instruction. S.A.R.

"Opportunities for Management in Employee Relations," by Lee H. Hill, *Sales Management*, January 15, 1945. Labor relations is only one phase of employer-employee relations and must be seen in its proper perspective. The author discusses management's responsibility to employees. G.S.

"Induction Plan Makes New Workers Want to Stay," by John Paul Jones, *Factory Management and Maintenance*, January, 1945. Describes the six-hour induction program at Allis-Chalmers Manufacturing Company.

"Small Batch Quality Control," *Production and Engineering Bulletin* (England), December, 1944. A detailed description of quality control methods of an engineering firm in Great Britain producing components in batch quantities of 200 to 1,000. Readers interested in obtaining further information on the application of quality control to small batch production can do so through the Ministry of Supply, Advisory Service on Quality Control, Berkeley Court, Glentworth Street, London, N.W. 1.

"Motion and Time Study: A Resume and Bibliography," by Joseph E. Zerga, Walt Disney Productions, *Journal of Applied Psychology*, December, 1944. A short article together with a bibliography of 510 items.

"Standard Times for Maintenance," by B. J. Sadoff, Swift & Company, *Factory Management and Maintenance*, December, 1944. A detailed description of a program begun in 1928, for establishing incentive standards for maintenance and repair crews at Swift & Company. Standards have been established on work involving carpenters, millwrights, pipefitters, boilermakers, tinsmiths, blacksmiths, roofers, electricians, painters, labor gangs and other maintenance classifications. E.S.H.

"Counseling—Bridge between Management and Worker," by Louise M. Snyder, *Factory Management and Maintenance*, January, 1945. How counseling is done at the Bell Aircraft Corporation in Georgia. Counselors here are given special training. Requests and complaints of workers are catalogued and used in preparing trend reports for management. G.S.

"How Can You Train Salesmen If You Make Thousands of Products?" by A. R. Hahn, *Sales Management*, January 15, 1945. Henry Disston & Sons' program which covers thirty days of intensive training in the plant and home office for all salesmen and for many executives. The article describes the program in considerable detail. S.A.R.

Prepared by

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